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ORGANIZATION AND METHODS
OF THE
UNITED STATES
LIFE-SAVING SERVICE.

BY

SUMNER I. KIMBALL

GENERAL SUPERINTENDENT OF THE SERVICE.

READ BEFORE THE COMMITTEE ON LIFE-SAVING SYSTEMS AND
DEVICES, INTERNATIONAL MARINE CONFER-
ENCE, NOVEMBER 22, 1889.

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1894.

**TREASURY DEPARTMENT,
LIFE-SAVING SERVICE,
OFFICE OF THE GENERAL SUPERINTENDENT,
*Washington, D. C., January 5, 1894.***

The following paper, which was read before the committee on life-saving systems and devices, International Marine Conference, November 22, 1889, by S. I. Kimball, General Superintendent of the United States Life-Saving Service, is published for the information of officers and employés of the service and others interested:



ORGANIZATION AND METHODS OF THE UNITED STATES LIFE-SAVING SERVICE.

The sea and lake coasts of the United States, exclusive of the coast of Alaska, have an extent of more than 10,000 miles. There are to-day upon these coasts two hundred and twenty-six life-saving stations, one hundred and sixty-five of which are on the shores of the Atlantic, eight on the shores of the Gulf of Mexico, eight on the shores of the Pacific, and forty-five on the shores of the great lakes. There is, besides, a station at the falls of the Ohio River at Louisville, Ky. These stations are located at selected points of danger to shipping, and vary somewhat in character, according to their environment and the nature of the service demanded of them. On some portions of the coast they are placed only at long intervals, while upon others they form chains of contiguous posts within communicating distance of each other.

From the eastern extremity of the coast of Maine to Race Point on Cape Cod, a distance of 415 miles, there are but sixteen stations, ten of these being located at the most dangerous points on the coast of Maine and New Hampshire, which, although abounding with rugged headlands, islets, rocks, reefs, and intricate channels that would naturally appear to be replete with dangers, are provided with numerous harbors and places of shelter in which, upon short notice, vessels can take refuge. The portion of the Massachusetts coast included, although less favored with safe resorts, enjoys the excellent guardianship of the Massachusetts Humane Society—a venerable institution, operating under the volunteer system. On account of this protection, the general Government has deemed it proper to place its stations within this territory only at points where wrecks are unusually frequent; at least, until other dangerous parts of the coast shall have been provided for.

Cape Cod, a narrow strip of sand, stretches directly out into the ocean some 40 miles, then abruptly turns to the north for an equal distance, and, like a threatening arm, fiercely menaces the commerce of the principal port of New England. Its eastern borders of shifting sand-bars fringe an unbroken line of sandy beaches which have become the burial-ground of unnumbered craft. Here ten stations are located nearly equidistant, and designed to co-operate with each other.

From Monomoy—the elbow of the Cape—to Montauk Point, a distance of 110 miles, the coast is again somewhat similar to that of Maine, and is provided with but nine stations.

The ocean shores of Long Island and New Jersey, one about 120 and the other 130 miles in length, form nearly a right angle, one side of

which faces southeasterly and the other easterly, the vertex being at the entrance to the harbor of the great commercial metropolis of the nation. The southern portion of the New Jersey coast also borders the entrance to Delaware Bay, which is traversed by the shipping of Philadelphia and Wilmington. The coast-line throughout nearly its whole extent consists of a narrow strip of sand beach, varying in width from a quarter of a mile to 5 miles, and separated from the mainland by narrow thoroughfares that sometimes expand into considerable bays. This strip is unbroken except by shallow inlets connecting the ocean with the inland waters, and by the entrance to New York Harbor, as before stated. At a distance of from one to four hundred yards from the shore it is bordered by outlying sand-bars, over which, in violent storms, immense walls of surf continually form and break. Its shores, exposed to all easterly storms, are constantly skirted by vessels bound into and out of the ports of New York, Philadelphia, and Wilmington, and by craft of the coasting trade. Their sands have always levied a fearful tribute upon the passing commerce, and are literally strewn with the half-buried and decaying skeletons of wrecked vessels, while the graveyards of the coast villages and settlements abound with unmarked mounds that tell a sorrowful tale of the destruction of human life. Here, therefore, the number of stations is increased, thirty-nine being placed upon the coast of Long Island and forty upon the New Jersey coast.

A similar formation marks the coast from Cape Henlopen to Cape Charles, and from Cape Henry to Cape Fear. On the first of these sections, a distance of 116 miles, sixteen stations are located, while from Cape Henry to Cape Hatteras, a stretch of 121 miles, there are twenty-three stations. These guard a portion of the ocean commerce of Philadelphia, all that of Baltimore and Norfolk, and the coastwise shipping.

Between Cape Hatteras and Cape Fear, 175 miles, six stations are placed, for the protection of the commerce of Beaufort and Wilmington, N. C., and for the benefit of coasting vessels liable to disaster upon these stormy capes.

From Cape Fear as far south as the peninsula of Florida there are no stations, with the exception of one on Morris Island, at the entrance to Charleston Harbor, their protection not being needed, for the reason that the westerly trend of the coast from Cape Hatteras to Florida takes it distant from the track of vessels not bound to or from the local ports. The climate is also much milder than in the higher latitudes, being almost perennial summer; consequently, shipwrecks are less frequent.

On the coast of Florida, when vessels strand, they usually come well up to the shore, so that sailors find little difficulty in reaching the land. Until of late, however, these shores were almost uninhabited, and mariners cast upon them were exposed to the terrors of starvation and thirst. On this account there are provided for their relief ten stations

of an exceptional type, denominated houses of refuge. There is, however, a completely equipped station at Jupiter Inlet, a somewhat dangerous point.

Along most of that portion of the coast of the Gulf of Mexico lying within the United States, the water is shoal for a great distance from shore, the soundings regular, and the coast-line generally low, marshy, or sandy. The dangerous gales are the "northers," so well known to seamen who frequent the Gulf, and these force vessels off and not on shore, except where a portion of the coast of Texas runs nearly north and south. This portion is exposed to the effects of these storms, especially if the wind is a little quartering from the east, and here are appropriately established four stations. There is also a station at the entrance to Galveston Harbor, where many vessels have been wrecked upon the bar, and at unusually exposed points two others.

The Pacific coast is not a dangerous one. From the southern boundary of the United States, as far north as San Francisco, the climate is remarkably bland, and shipwrecks are of rare occurrence. The remainder of the coast-line, extending northward to the Straits of Fuca, is very regular, bold, and unbroken, and contains but few harbors. The prevailing winds are mostly from a common quarter, blowing not towards the shore, but southward, along its line, with almost the regularity of monsoons. The weather, therefore, is easily forecast, and navigation can not in general be regarded as hazardous. There are, however, a few extremely dangerous points, mostly situated at the entrances to the important ports. These are guarded by eight stations.

The cluster of inland seas known as the Great Lakes contains an area of about 80,000 square miles, and has a coast line within the limits of the United States of nearly 2,500 miles. These seas are open to navigation about eight months in the year; at other times being closed by ice, although one or two steamers cut their way across Lake Michigan at intervals throughout the winter. There are few natural harbors, but a large number of artificial ones. These are formed at the mouths of rivers by extending piers from their banks out into the lake for a considerable distance and dredging the bottom between. The lakes are generally tranquil, but at certain seasons are visited by violent gales which throw their fresh waters into furious convulsion with a suddenness unknown upon the ocean. Vessels unable to hold their own against the severity of these storms, being land-locked and with scant sea room, are likely to be left with only the choice between stranding wherever they may be driven and seeking refuge in the harbor that seems most accessible. The latter course is naturally the one taken. To effect an entrance within the narrow space between the piers at such times with sailing vessels, and even with steamers, is frequently a task of extreme difficulty, and the luckless craft are liable to strand upon the bar on one or the other side of the piers and meet their destruction. At some of these harbors many disasters occur in a single day.

The numerous severe gales attending the opening and closing of navigation in the early spring and late fall cause great numbers of wrecks from the enormous shipping of the lakes. As the strandings usually occur near the harbors, however, the number of stations required is not so large as it would be if they were distributed more generally along the shore. The number at present is, as I have stated, forty-five.

At Louisville, Ky., dangerous falls occur in the Ohio River, across which a dam has been constructed with two wide openings or chutes to facilitate the descent of vessels, the ascent being accomplished through a canal provided with locks. This dam is a source of danger to boats attempting to cross the river to the city of Jeffersonville, as they are liable to be sucked down by the chutes or swept over its verge. Larger vessels are also exposed to danger if they become disabled or unmanageable. For this reason it has been found advisable to moor here a floating station of a unique character.

The remaining few stations are located at various points which have seemed to need their protection. There are eight stations now in course of construction, and twenty others authorized to be hereafter built at various isolated points of danger. When these are completed, this form of protection will have about reached the practical limit of the present necessities of our commerce.

The stations upon the ocean beaches are generally situated among the low sand-hills common to such localities sufficiently back of high-water mark to be safe from the reach of storm-tides. They are plain structures, designed to serve as barracks for the crews and to afford convenient storage for the boats and apparatus. Most of those upon the Long Island and New Jersey coasts have been enlarged from the boat-houses put up to shelter the boats and equipments provided for the use of volunteers before regular crews were employed. Those built later are more comely in appearance, while a few, located conspicuously at popular sea-side resorts, make some pretensions to architectural taste. They are all designated by names indicating their localities.

In the majority of stations the first floor is divided into four rooms a boat-room, a mess-room (also serving for a sitting-room for the men a keeper's room, and a store-room. Wide, double-leafed doors and sloping platform extending from the sills to the ground permit the running out of the heavier equipments from the building. The second story contains two rooms; one is the sleeping-room of the men, the other has spare cots for rescued people and is also used for storage. The more commodious stations have two additional rooms—a spare room and a kitchen. In localities where good water can not be otherwise obtained cisterns are provided for water caught from the roof. There surmounts every station a lookout or observatory, in which a day watch is kept. The roofs upon the stations on those portions of the coast exposed to view from the sea are usually painted dark red which makes them distinguishable a long distance off shore. They

also marked by a flag-staff 60 feet high, used in signaling passing vessels by the International Code.

The stations (other than the house of refuge) are generally equipped with two surf-boats (supplied with oars, life-boat compass, and other outfits), a boat-carriage, two sets of breeches-buoy apparatus (including a Lyle gun and accessories), a cart for the transportation of the apparatus, a life-car, twenty cork jackets, two heaving sticks, a dozen Coston signals, a dozen signal rockets, a set of the signal flags of the International Code, a medicine-chest with contents, a barometer, a thermometer, patrol lanterns, patrol checks or patrol clocks, the requisite furniture for rude housekeeping by the crew and for the succor of rescued people, fuel and oil, tools for the repair of the boats and apparatus and for minor repairs to the buildings, and the necessary books and stationery. At some of the stations the Hunt gun and projectiles are supplied, and at a few the Cunningham rocket apparatus. To facilitate the transportation of boats and apparatus to scenes of shipwreck a pair of horses is also provided at stations where they can not be hired, and to those stations where the supplies, mails, etc., have to be brought by water a supply boat is furnished.

All the stations on the ocean coast of Long Island, twenty-nine stations on the coast of New Jersey, nine stations on the coast between Cape Henlopen and Cape Charles, and all the stations between Cape Henry and Hatteras Inlet are connected by telephone lines.

The few lake stations located upon the sand beaches are similar in all respects to those upon the sea-coast, but those situated at the harbors differ from them in that room is provided for a heavy life-boat and for a small boat for quick work in the immediate vicinity of the station. The buildings are usually located not far from the water's edge, behind one of the piers of crib-work forming the sides of the harbor entrance. An inclined platform, upon which are laid two tramways for the launching of the boats, extends from the boat-room down to the water through an opening cut in the pier. Cradles or cars are provided, on which the boats are kept mounted and by which they can be put afloat with the men at their oars in half a minute. Exit for the surf-boat wagon and apparatus cart is also provided in the rear of the building, in case it should be necessary to transport them along the shore. These stations usually have telephone connection with the systems of the adjacent towns.

The houses of refuge on the Florida coast are simple dwellings, not unlike those common at the south, with capacity sufficient for the residence of a family, and for the temporary shelter of as many as are likely to need it. The distance between them averages 26 miles, and at each mile along the coast are placed guide posts indicating the distance and direction to the nearest station. The houses are supplied with cots and provisions sufficient to succor twenty-five persons for ten days. No

boats or apparatus are provided, except a small galvanized iron boat for the use of the keeper.

The floating station at Louisville is a scow-shaped hull, on which is a house of two stories surmounted by a lookout. Besides the house-keeping furniture there are but few equipments; two boats called life-skiffs, and two reels, each with capacity to hold a coil of 5-inch manilla rope, and so placed in the boat room that a line can be speedily run out from either, or, if desired, that they can be rolled out of the boat-room, with the lines upon them, for use elsewhere. The station is usually moored above the dam at a place which will afford the readiest access to boats meeting with accident, but it can be towed from place to place when necessity requires, as was the case in the great floods of 1883-'84, when it was of incalculable service in rescuing people from the upper stories and roofs of their inundated dwellings, and in distributing food to the famishing. On these two calamitous occasions the crew of this station rescued and took to places of safety over 800 imperiled persons, men, women, and children—among them many sick and infirm—and supplied food and other necessities to more than 10,000.

The station buildings upon the coast are all constructed with a view to withstand the severest tempests. Those located—as many necessarily are—where they are liable to be undermined or swept from their positions by the ravages of storms and tidal waves, are so strongly put together that they may be overthrown and sustain but trifling injury. There are instances on record where they have been carried a long distance inland—in one case a half a mile—without sustaining material damage. This substantial construction also enables them to be easily and cheaply moved when threatened by the gradual encroachment of the sea, which, upon many sections of the coast, effects in the course of years great changes in the configuration of the coast line.

Since the establishment is closely related to commerce and the collection of the revenue, it is attached to the Treasury Department, which discharges all executive functions of that character. It has, indeed, from its earliest inception, been formed and fostered by that Department. The present system was established in 1871, upon the New Jersey and Long Island coasts, by a code of regulations under the authority of somewhat scattered and fragmentary legislation. Acts of Congress passed since that time have extended it to embrace the entire ocean and lake coasts, which are divided into twelve districts, limited in general by prominent natural or political boundaries.

The chief officer of the Service is the General Superintendent, whose appointment is made by the President and confirmed by the Senate. No one is eligible to the position who is not familiar with the men employed in the service for the saving of life and property from shipwreck. The law places no limit upon the tenure of this officer, who is therefore subject to the pleasure of the President. He has general charge of the Service, and of all administrative matters connected with

it. His compensation is \$4,000 per annum. An assistant general superintendent, appointed by the Secretary of the Treasury, assists him, and in his absence performs his duties. His compensation is \$2,500 per annum.

The office of the General Superintendent is in Washington, where, to assist in the transaction of business, are employed a corps of clerks, a civil engineer, a topographer and hydrographer, and a draughtsman. To assist the General Superintendent in investigating devices and inventions for the improvement of life-saving apparatus there has been formed a Board on Life Saving Appliances, composed of experts selected from the Life Saving Service and others. It is their duty to examine and report upon such devices as may be submitted to them.

The next official in rank to the General Superintendent is the Inspector, an officer detailed from the Revenue-Cutter Service upon the request and recommendation of the General Superintendent. His headquarters are in New York City. Besides making periodical inspections of the stations, he performs such other duties in connection with the conduct of the service as the General Superintendent may direct. Nearly all the self-bailing and self-righting life boats are built in New York, and most of the apparatus is manufactured there. He is, therefore, required to inspect and superintend the work upon these. Under the system pursued by the Government for making purchases of goods for its use, a large proportion of the outfits and supplies for the stations are obtained in that city, and these he is also required to inspect. An assistant inspector is detailed to the office of the Inspector, and in his absence acts for him. Such other assistance as is found necessary is also allowed.

An assistant inspector is also detailed from the Revenue-Cutter Service for each district. He is authorized to perform within his district any of the duties of the Inspector under the latter's direction. He visits each station monthly during the "active season," and upon each visit, in addition to the ordinary routine of inspection, he examines and practices the crews in their duties. On his first tour after the opening of the stations in each year, he examines the keepers and men as to the required qualifications, reporting for dismissal any found wanting. Upon each succeeding visit he makes a similar examination of all persons who have entered the service since his previous visit. He makes special visits to any of the stations when necessary. Whenever a shipwreck attended with loss of life occurs within the domain of the service, an assistant inspector is detailed to carefully investigate all the circumstances connected with the disaster, with a view of ascertaining its cause, and whether the officers or employes of the service have been guilty of neglect or misconduct. The results of these investigations are published in the annual reports. The Inspector and assistant inspectors receive no other compensation than that pertaining to their rank in their own corps.

Each district is under the immediate charge of a superintendent, and

for the coast of Rhode Island—a portion of the third district, widely separated by water from the other portion and from the adjacent district, but not large enough to form a district by itself—there is an assistant superintendent. These officers must be men of good character and correct habits, not less than twenty-five nor more than fifty-five years of age when appointed; able to read and write English readily, and have sufficient knowledge of accounts to properly transact the district business. They must be residents of the respective districts for which they are chosen, familiar with the line of coast embraced within them, and conversant with the management of life-boats and other life-saving appliances. They are rigidly examined as to these qualifications by the General Superintendent and the Inspector. They are disbursing officers and paymasters for their respective districts, and are required to enter into bonds varying in amount from \$10,000 to \$50,000, according to the fiscal responsibility placed upon them. They are also *ex officio* inspectors of customs. They conduct the general business of their districts, look after the needs of the stations, make requisition on the General Superintendent for station supplies, repairs, etc., and upon receipt of authority see that these are furnished. They visit the stations at least once a quarter to acquaint themselves with their condition. On these occasions they pay off the crews and make such other disbursements as are authorized. As inspectors of customs they look after the interests of the Government in reference to dutiable property wrecked within their jurisdiction, and see that the keepers of stations perform their duties in respect thereto. Their compensation ranges from \$1,000 to \$1,800 per annum, and is designed to be proportionate to the extent of their duties and to the degree of fiscal responsibility incumbent upon them severally.

Each station has a keeper who has direct control of all its affairs. The position held by this officer will be recognized at once as one of the most important in the Service. He is, therefore, selected with the greatest care. The indispensable qualifications for appointment are that he shall be of good character and habits, not less than twenty-one nor more than forty-five years of age; have sufficient education to be able to transact the station business; be able-bodied, physically sound, and a master of boat-craft and surfing. He is usually nominated by the district superintendent, the initial step being left to that officer because of the extensive acquaintance he is supposed to have with the class of men from which the choice must be made, by reason of long residence among them and because of the degree of responsibility resting upon him for the condition and conduct of his district. So much depends, however, upon the selection, that an effort is made to eliminate, as far as possible, the chance that any political, social, or personal interests shall intentionally or unintentionally enter into it. In the vicinity of nearly all the stations there are numbers of fishermen and wreckers who have followed their callings from boyhood and become expert in the handling

of boats in broken water, and among these there is usually some one who, by common consent, is recognized as a leader *par excellence*. He is the man it is desirable to obtain for keeper, unless there be some fault of character which should exclude him. The nomination is accompanied by a statement of the reasons which guided the district superintendent in his choice, and a certificate of the candidate's physical soundness, made by a surgeon of the Marine Hospital Service, after careful examination. Before granting his approval the General Superintendent submits the nomination to the district inspector for his views, and if after thorough inquiry he concurs, the General Superintendent approves and the appointment is made. If he does not concur, and his stated reasons seem to justify his conclusion, the General Superintendent takes such action as he deems best, either calling upon the district superintendent to submit another nomination, or visiting the locality himself and seeking out the proper person. It is gratifying to be able to state, and it is an evidence of the singleness of purpose and strict appreciation of duty which actuate both the district officers, that difference of opinion in reference to a nomination has rarely arisen between them.

It is not found difficult to fill vacancies that occur among the keepers at old stations, or along that portion of the coast where the stations are contiguous. Either from the crew where the vacancy exists, or from a neighboring one, there is selected the most competent surfman, the merits of all having been ascertained by inspection and drill and recorded in the central office. Rarely, it is considered for the best advantage and welfare of the service to take some person from without; in which case the district officers are required to set forth specifically all the facts upon which this conclusion is based. The original selection of keepers for new stations remote from others is less easily determined.

The keepers are required to reside constantly at their stations; are intrusted with the care and custody of the station property, for which they are accountable; and govern the station premises. They are captains of their crews; exercise absolute control over them (subject only to the restriction of the regulations of the Service and the orders of superior officers); lead them and share their perils on all occasions of rescue, taking always the steering oar when the boats are used, and directing all operations with the apparatus. They are also *ex officio* inspectors of customs, and as such take care of the Government interests in relation to dutiable goods on wrecked vessels, until the arrival of other customs officers. By law they are also made guardians of all wrecked property until relieved by the owners or their agents, or until instructed by superior authority as to its disposition.

No crews are employed at houses of refuge, but the keepers and their families travel after storms as far as practicable along the shore in both directions from the stations, searching for persons possibly cast ashore.

A daily journal or log is required to be kept at every station, weekly transcripts of which the keeper sends through the district superintendent to the General Superintendent, who is thus kept advised of all that transpires. Immediately after the occurrence of a wreck the keeper furnishes a complete report of every detail of interest concerning the disaster, and from time to time various other reports are required of him. Any false statement made in the books or reports subjects him to instant dismissal.

The Secretary of the Treasury is authorized to grant the keepers a compensation not to exceed \$800 per annum. The maximum amount is paid only to one or two, whose stations are so isolated that they are obliged to secure an associate to reside with them when the crews are off duty, and to such keepers as have remarkably distinguished themselves by bravery and effective service. The usual salary paid is \$700 per annum; to keepers of houses of refuge, only \$400.

The law provides that the stations on the Atlantic and Gulf coasts shall be opened and manned for active service from the 1st day of September in each year until the 1st day of the succeeding May, and those on the lake coasts from the opening to the close of navigation, usually from about the 15th of April to about the 15th of December. On the Pacific coast the period is left discretionary with the General Superintendent. The time during which the stations are manned is designated the "active season." Four of the stations on the Pacific coast are kept open the year round, experience having shown that disasters in their neighborhood occur more frequently from local causes than from stress of weather, and are about as liable to happen at one season as at another. For similar reasons a crew is kept continuously at the Louisville station.

The number of men composing the crew of a station is determined by the number of oars required to pull the largest boat belonging to it. There are some five-oared boats in the Atlantic stations, but at all of them there is at least one of six oars. Six men, therefore, make up the regular crews of these stations, but a seventh man is added on the 1st of December, so that during the most rigorous portion of the season a man may be left ashore to assist in the launching and beaching of the boat and to see that the station is properly prepared for the comfortable reception of his comrades and the rescued people they bring with them on their return from a wreck; also to aid in doing the extra work that severe weather necessitates. Where the self-righting and self-bailing boat which pulls eight oars is used, mostly at the lake stations, a corresponding number of men is employed.

The crews are selected by the keepers from able-bodied and experienced surfmen residing in the vicinity of the respective station. This privilege is granted the keepers in view of the obvious necessity for mutual confidence between a leader and his followers in hazardous enterprises involving their own lives and the lives of others, and in

of the strict responsibility to which each keeper is held for the good repute of his station and the conduct of its affairs.

In the absence of strong counteracting inducements these considerations would naturally lead to the choice of the very best men to be had. It was early found, however, that political, social, and family influences were often strong enough to so control the selection as to materially affect the efficiency of a crew. To oppose them certain regulations were established; the most important of which provided that the selection of keepers and crews should be made solely with reference to their fitness and without regard to their party affiliations. This, after being enforced for several years, received in 1882 the sanction of Congress, being at the same time extended to the appointment of district superintendents and inspectors. This enactment greatly aids successful resistance to the most insidious and potent evil that has ever threatened the welfare of the service. Another important regulation forbids a keeper to take into his crew his brother, father, or son, except where adherence to the rule would be detrimental to the service. This was found necessary to countervail the quite natural inclination of keepers to provide situations for their near kinsmen, even to the serious detriment of the strength and *morale* of the station force.

Protected by these and a few less noteworthy safeguards, the method adopted for manning the stations has filled them with the very pick and flower of the hardy race of beachmen who inhabit our shores. No better evidence of the virtue of the plan can be desired than the fact that during the eighteen years it has governed the selection of the men not one has shown the white feather, while the pages of the annual reports of the service are crowded with the records of gallant deeds that have made them famous throughout the land.

Upon original entry into the Service a surfman must be not over forty-five years of age, and sound in body, being subjected to a rigid physical examination by a surgeon of the Marine Hospital Service. He is afterwards examined as to expertness in the management of boats and matters of that character by the inspector of the district. The regulations setting forth his duties being read to him, he is enlisted by signing articles by which he agrees to reside at the station continuously during the "active season," to perform such duties as may be required of him by the regulations and by his superior officers, and also to hold himself in readiness for service during the inactive season, if called upon. Desertion entails a forfeiture of his wages, to be exacted in the discretion of the General Superintendent. His compensation is \$50 per month during the "active season," and \$3 for each occasion of service at other times. Beyond the wages mentioned the surfmen receive no allowances or emoluments of any kind, except the quarters and fuel provided at the stations. Their food and clothing they themselves supply.

No person belonging to the Service is permitted to hold an interest

in any wrecking apparatus, or to be connected with any wrecking company; nor is he entitled to salvage upon any property he may save or assist to save.

A surfman can not be discharged from the Service without good and sufficient reason. For well-proven neglect of patrol duty, or for disobedience or insubordination at a wreck, the keeper may instantly dismiss him; in all other cases special authority must be first obtained from the General Superintendent.

In case a keeper or surfman becomes disabled by injury received or disease contracted in the line of duty, he is entitled to receive his full pay during the continuance of the disability, if it does not exceed one year, and upon the recommendation of the General Superintendent the Secretary of the Treasury may extend the time for a second year, or a part thereof, but no longer in any case. If any keeper or surfman loses his life by reason of injury or disease incurred in the line of his duty, his widow or children under sixteen years of age may receive for two years the pay that the deceased would have if alive and in the Service. If the widow remarries or a child arrives at the age of sixteen, the amount that would have been paid to the one or the other goes to the remaining beneficiaries, if any. It will be seen at once that this beneficence affords certain advantages to the widow which the ordinary pension does not furnish, inasmuch as the death of her husband does not add to her grief the misfortune of financial embarrassment by cutting off or diminishing the family income at a time when the funeral expenses make an unusual demand upon it.

At the opening of the "active season" the men assemble at their respective stations and establish themselves for a residence of eight months. They arrange for their housekeeping, usually by forming a mess, taking turns by weeks in catering and cooking, although at some of the stations they engage board of the keeper at a rate approved by the General Superintendent. These preliminaries being settled the keeper organizes his crew by arranging and numbering them in their supposed order of merit, the most competent and trustworthy being designated as No. 1, the next No. 2, and so on. These numbers are changed by promotion as vacancies occur, or by such re-arrangement from time to time as proficiency in drill and performance of duty may dictate. Whenever the keeper is absent, No. 1 assumes command and exercises his functions.

The rank of his men being fixed, the keeper assigns to each his quarters and prepares station bills for the day watch, night patrol, boat and apparatus drill, care of the premises, etc. For the purpose of watch and patrol, the district officers establish patrol limits as far as practicable along the coast in both directions from the stations, marking the by distinct monuments, and a description of the beats thus laid out sent to the office of the General Superintendent. The day watch kept from sunrise to sunset by a surfman daily assigned to this duty

who is usually stationed in the lookout, and who, if the patrol limits can not be seen from there, goes at least three times a day far enough along the shore to bring them into view. During thick and stormy weather a complete patrol like that at night is maintained. At the harbor stations on the lakes, at the river station at Louisville, and at other places where accidents are frequent, there is connected with the lookout a gong, by means of which the crew is alarmed when occasion requires. The day watch keeps a record of all passing vessels.

For the night patrol the night is divided into four watches—one from sunset to 8 o'clock, one from 8 to 12, one from 12 to 4, and one from 4 to sunrise. Two surfmen are designated for each watch. When the hour for their patrol arrives they set out in opposite directions along the coast, keeping as near as practicable to the shore, as far as the ends of their respective beats. If within communicating distance from an adjacent station, each patrolman proceeds until he meets another from the next station and gives him a metallic check marked with his station and crew number, receiving in exchange a similar one. The checks thus collected are examined by the keeper, recorded in the journal, and returned to their proper stations the next night. If a patrolman fails to meet his fellow from the adjacent station, after waiting a reasonable time at the usual place of meeting, he continues his journey until he either meets him or reaches that station and ascertains the cause of the failure, which, on his return, he reports to his keeper, who makes a record of it in his journal.

At isolated stations each patrolman is required to carry a clock within which is fixed a dial that can be marked only by means of a key which also registers the time of marking. This key is secured to a post at the end of his beat, and he is required to reach it and bring back the dial properly marked.

Each patrolman is equipped with a beach-lantern and several red Coston hand-lights. Upon the discovery of a wreck, a vessel in distress, or one running dangerously near the shore, he ignites by percussion his hand-light, which emits a brilliant red flame. This serves the double purpose of warning the people on the vessel of their danger and of assuring them of succor if they are already in distress.

For every week-day a regular routine of duties is appointed. For Monday, it is drill and practice with the beach-apparatus and overhauling and examining the boats and all apparatus and gear; for Tuesday, practice with the boats; for Wednesday, practice with the international code of signals; for Thursday, practice with the beach apparatus; for Friday, practice in the method adopted for restoring the apparently drowned; and for Saturday, cleaning house. Whenever anything prevents the regular performance of any of these duties, the fact must be entered upon the station journal, with a full explanation, and the omitted exercise performed at the first opportunity.

For practice with the beach apparatus there is provided near each

station a suitable drill ground, prepared by erecting a spar, called a wreck-pole, to represent the mast of a stranded vessel 75 yards distant (over the water if possible) from the place where the men operate, which represents the shore. At drill the crew is mustered in the boat-room, and each man, upon his number being called, salutes the commanding officer and recites in proper sequence every act he is to perform in the exercise as prescribed in the Service manual. At the proper words of command they all fall into their allotted places at the drag-ropes of the apparatus-cart and draw it to the drill ground, where they perform the remainder of the exercise, which consists in effecting a mimic rescue by rigging the gear and taking a man ashore from the wreck-pole in the breeches-buoy. The officer conducting the drill carefully notes the time which elapses from the moment he gives the initial command "action" until the rescued man sets foot upon the shore.

If in one month after the opening of the "active season" a crew can not accomplish the rescue within five minutes it is considered that they have been remiss in drilling, or that there are some stupid men among them. They are cautioned that if upon the next visit of the inspector a marked improvement is not shown some decisive action will be taken to secure it. This usually produces the desired effect. In many of the districts a spirited rivalry exists between the stations for excellence in this drill. It has been executed without error by several crews in two minutes and thirty seconds. I confess I was incredulous of the possibility of such a feat until I witnessed it myself; but even this is perhaps less surprising than the time attained at some of the night drills, when, without lights other than the moon and stars, the shot has been fired, the apparatus set up, and a man brought ashore from the wreck-pole in three minutes. Of course, nothing like such celerity can be expected in effecting rescues at actual shipwrecks, when storms, currents, surf, the motion of the vessel, the lack of skillful co-operation on the wreck, and many other unfavorable elements conspire to obstruct progress, and the practice of timing the drill was instituted, not so much with the expectation of materially hastening the work of rescue, as with the design of giving the men the utmost familiarity with the stowage of the apparatus in the cart, with its uses, and with the method of hauling it.

How well this purpose is fulfilled has been repeatedly illustrated on occasions of rescue, but never better than in the memorable storm of February 3, 1880, which wrought general ruin and devastation upon the coast of New Jersey and strewn her shores with wrecks. In the very height of that terrible tempest, at the dead of night, the crews of three separate stations rescued without mishap the people on four different vessels by means of the apparatus, set up and worked in almost utter darkness, the lanterns of the surfmen being so thickly coated with sleet that they emitted only glimmers of light so feeble that the lines and implements could not be seen. These and the other rescues achieved

in that storm excited such public admiration that the State legislature unanimously passed resolutions commending the skill and bravery of the station crews.

Boat practice consists in launching and landing through the surf, and at least a half hour's exercise in handling the oars under the keeper's directions.

Drill in signalling is conducted by interrogating each surfman as to the meaning of the various flags, the definitions of two, three, and four flag-hoists, the distinguishing flag or pennant of each hoist, the use of the code book, and by actual conversation carried on by means of two sets of miniature signals provided for each station. Frequent practice is also had between the stations and revenue vessels.

The method adopted for restoring the apparently drowned is formulated into four rules which each member of the crew commits to memory. In drill he is required to repeat these and afterwards illustrate them by manipulations upon one of his comrades. The medicine-chest is also opened and he is examined as to the use of its contents.

The proficiency of every keeper and surfman in the several branches of qualification in which he is thus trained, as ascertained in the drills conducted by the district inspectors on their monthly visits, is marked by those officers in their drill-books upon a scale of ten; and transcripts of this rating are transmitted to the General Superintendent, who is thus kept constantly informed of the effectiveness of the corps.

The ultimate means employed by life-saving institutions to rescue people from stranded vessels are everywhere essentially the same. The tumultuous waters between the wreck and the shore are either crossed by a life-boat sent out to the imperilled people or are spanned by strong lines by which a breeches-buoy or other vehicle is passed back and forth. There are many kinds of life-boats, however, and various devices for effecting line-communication. The type of boat in most general use in our Service, although properly entitled to be called a life-boat, is distinctively known as the surf-boat, and this term will be applied to it in the remarks which follow upon this topic. There are several varieties of this type, all developments of the boat found in use among the shore fishermen or surfmen of the Long Island and New Jersey coasts for crossing the surf on the outlying sand-bars in their daily blue-fishing when the first boat-houses or stations were placed there. Three varieties, respectively designated the Beebe, the Higgins & Gifford, and the Beebe-McLellan surf-boat, from the names of the persons who devised the modifications which characterize them, are the only ones furnished to the stations in recent years. They are all constructed of white cedar with white-oak frames, and their dimensions are from 25 to 27 feet in length, $6\frac{1}{2}$ to 7 feet beam, 2 feet 3 inches to 2 feet 6 inches depth amidships, and 1 foot 7 inches to 2 feet 1 inch sheer of gunwale. Their bottoms are flat, with little or no keel, and have a camber of $1\frac{1}{2}$ or 2 inches in 8 feet each side of the midship section.

They draw 6 or 7 inches of water, light, and weigh from 700 to 1,100 pounds. They are propelled with six oars, without sails, and are expected to carry, besides their crews, from ten to twelve persons, although as many as fifteen have been landed at a time in a bad sea. Their cost ranges from \$210 to \$275. There is no great difference between the Beebe and the Higgins & Gifford boat, except that the former has more sheer and is clinker-built, while the latter is of carvel construction. The Beebe-McLellan boat is the Beebe boat with the self-bailing quality incorporated. This feature has been added within the past two years, and but few of them have yet been put in service. All of these boats are so light as to be readily transported along the shore; they can be launched in very shallow water, and in the dexterous hands of our surfmen are maneuvered in the breakers with marvelous ease and celerity. This facility of handling is of great advantage when working in proximity to wrecks, enabling the boat to evade collision with floating wreckage, and to quickly slip up alongside a stranded vessel at a favorable moment and receive its freight, while it is easily fended off from contact with the lurching hull.

These boats, of one variety or other, are supplied to nearly all the stations in the Service, and on the Atlantic sea-board they are relied upon almost exclusively. Indeed, the shores of soft, yielding sand without roads, and the flat beaches covered with but little depth of water for a considerable distance seaward, which almost uniformly mark the coast from Cape Cod to Cape Fear, preclude the use of boats of greater weight and draught. Even at those stations where the most approved self-righting and self-bailing boats are furnished, the surf-boats are generally preferred by the life-saving crews for short distances and when the number of imperilled people is not large. In executing the work required at minor casualties, such as aiding to float stranded craft by carrying out anchors, running lines to tugs, etc., they are especially handy and by their use a vast amount of property has been saved.

As respects safety they will compare favorably with any other boats. During the eighteen years they have been in the hands of our crews they have been launched 6,730 times in actual service, and have landed 6,735 persons from wrecked vessels. In all this service they have capsized but 14 times. Six of these instances were attended with loss of life, the number of persons perishing being 41, of whom 27 belonged to the service and 14 were shipwrecked people.

Among other life-boats, the self-righting and self-bailing boats of the Royal National Life-Boat Institution of Great Britain, the honored mother and mentor of all existing life-saving organizations, are unquestionably pre-eminent. They are the product of a century's devoted study and experiment with unstinted means, dating from the time the London coach-maker first conceived the idea of a life-boat. Their wonderful achievements have formed the theme of song and story, shed merited luster upon the institution which fostered their development.

and stimulated the formation of kindred organizations equipped with their models throughout christendom. I learn from the annual reports of the institution that during the same period of eighteen years her boats have capsized 21 times attended by loss of life, the number perishing aggregating 75, of whom 68 were life-boatmen and 7 shipwrecked people. The number of capsizes unattended with loss of life I could not ascertain, except by an exhaustive search through the detailed accounts of all the occasions of service, but I find by the official report of the inquiry into the circumstances of the accidents to the Southport and St. Anne's life-boats in December, 1886, made to the Board of Trade by Sir Digby Murray, Bart., and captain, the Hon. H. W. Chetwynd, of the Royal navy, chief inspector of life-boats for the institution, that during the previous thirty-two years, the self-righting boats of the institution had been launched in actual service 5,000 times, whereby 12,000 lives were saved, and that on these occasions 41 of the boats had capsized, 23 of the accidents being unattended with loss of life, while 18 were accompanied with fatal results. The number of persons lost was 88, 76 being life-boatmen and 12 shipwrecked people. The report further states that "the 76 life-boatmen lost represented about 1 in 850 of the men afloat in the life-boats on service, and the capsizes 1 out of each 120 launches on service." In the case of our capsized surf-boats the 27 men lost represented 1 in 1,744 of the men afloat in the surf-boats on service, and the capsizes 1 out of each 480 launches on service. But as the saving of property is an incidental duty imposed upon our crews, the surf boats, although they are not used in saving cargoes, are doubtless often launched under conditions more favorable than generally fall to the lot of the boats of the institution, and therefore the number of launches does not afford a satisfactory basis for comparison. Let us therefore take another basis. The number of lives saved by the life-boats is stated, as we have seen, at 12,000—in round numbers, probably. Calling the number saved by the surf-boats 6,500 in round numbers, we find, then, 1 capsize of the surf-boat to every 464 persons saved, a difference in its favor of 172. The self-righting boat lost 1 life to every 136 saved, the surf-boat 1 to every 158 saved, a difference of 22 in its favor. Of the life-boatmen afloat, 1 to 850 were lost by the self-righting boat, 1 to 1,109 by the surf-boat, a difference of 259 in favor of the latter. In the life-boat 1 man of the crew is lost for every 157 lives saved, in the surf-boat 1 for every 240 saved, a difference in favor of the surf-boat of 83.

Since 1876 there have been put into the United States Service 37 self-righting and self-bailing life-boats of the model of a boat received from the Royal National Life-boat Institution. They are all nearly reproductions of the boat sent to us. They are 29 feet 3 inches in length, 7 feet 7 inches beam, 3 feet 1½ inches deep amidships, 1 foot 10 inches sheer of gunwale, straight-bottomed, pull 8 oars, and weigh about 4,000 pounds each. This great weight is made necessary by the device

of a heavy iron keel to aid in securing the self-righting quality. They have made on service 471 trips and saved 584 persons; they have capsized on service 4 times, once with fatal results, 5 lives, all shipwrecked people, being lost. These figures produce results similar to those already reached in reference to the life-boats used in Great Britain. The boats have capsized once in each 118 trips, and once in rescuing every 146 persons, and one life has been lost from the boats to every 117 saved.

There are two other varieties of self-righting and self-bailing boats in the service—the Richardson and the Dobbins. They are modifications of the life-boat just described, though considerably lighter. They have not been used often enough to furnish any practical basis of comparison, but have given good results so far.

Notwithstanding these figures it would be unwise to hastily conclude that the surf-boat of either variety mentioned is the best life-boat for all conditions of service. Among the boats at present employed in life-saving institutions I know of none that can justly be denominated the best life-boat. The type that is best for one locality may be ill-adapted or entirely unfitted for another, and a boat that would be serviceable at one time might be worse than useless at another in the same locality.

On the larger portion of the Atlantic sea-board boat service at wrecks is not very distant from the shore, and the chief danger lurks in the line of surf which must be crossed and in the breakers on outlying shoals. For this service the surf-boat is easily transported on its carriage through the loose and trackless sands of the strand to a point as near the wreck as possible, is quickly unloaded, and at a favorable time is launched in a minute. The keeper steers with a long steering oar, and with the aid of his trained surfmen, intent upon his every look and command, maneuvers his buoyant craft through the surf with masterly skill. He is usually able to avoid a direct encounter with the heaviest breakers, but if he is obliged to receive their onset meets them directly "head on." His practiced hand immediately perceives any excess of weight thrown against either bow and instantly counteracts its force with his oar as instinctively and unerringly as the skilled musician presses the proper key of his instrument. He thus keeps his boat from broaching-to and avoids a threatened capsize. The self-righting boat is more unwieldy and not so quickly responsive to the coxswain's tactics, and is therefore not so well adapted to our general work.

The usual conditions of service in the United Kingdom are probably different. The excursions the life-boats make on service are said to be more extended, and exposure to violent gales for long periods upon the open sea more frequent. Our surf-boats, it is true, venture upon outlying shoals covered with breakers, such as the Nantucket Shoals, off Massachusetts, and the Diamond Shoals, off Cape Hatteras, but it is likely that there is no such locality within the scope of our Service so fatal

as the terrible Goodwin Sands, which are often visited by the boats of the Royal National Life-Boat Institution, and where they have accomplished so much noble work. There are doubtless other important differences in the requirements of service with which I am not acquainted. Probably, therefore, the conditions are so diverse that no just conclusion as to the superiority of the two boats can be drawn from the results of their experience, and I have given these results in comparison, not with a desire to establish such a conclusion, but to show that the United States Service has provided quite as effective means for dealing with the conditions presented to it as the most eminent organization of other countries has for its conditions, and because I thought they might be of service in the deliberations of the committee in considering some of the topics of the division of the programme referred to it, and, further, because I thought they might aid in the efforts always being made by life-saving institutions and by individuals to improve the safety of life-saving boats. Where long excursions are to be undertaken and the service is exceptionally hazardous, the men undoubtedly feel safer in a self-righting boat, and, having this in view, it has been introduced into many of our stations, where it may be found side by side with the surf-boat, the choice being left to the keepers to take either, as the occasion seems in their experienced judgment to demand.

Self-righting and self-bailing are properties unquestionably desirable in any boat designed to be used in saving life, provided they can be obtained without too greatly impairing other necessary qualities. May it not be a question worthy of consideration whether these properties and the means of propulsion by sails can not be advantageously incorporated into the surf-boat without materially increasing its weight and draught, and whether such a boat would not be found to be better adapted to perform the general services of life-boats than those which sit deeply in the water, and which, on that account and because of their great weight, are less agile in action and more difficult to transport and launch? Already, as I have said, the self-bailing property has been successfully applied by Lieutenant McLellan, and is hailed with delight by our crews; the addition of sails has also been accomplished by the use of a center-board, and I am able to add that I believe the self-righting quality is on the verge of successful application. One boat of this kind is already built, and with slight changes, which seem entirely practicable, I believe will satisfactorily solve the problem, at least so far as to answer all the purposes of our Service. When this result is attained, why may not self-bailing and self righting boats supplant the inferior boats now carried upon passenger vessels for life-boats? And why, since it has been found that the self-bailing principle can be applied to a model thoroughly convenient to be carried on shipboard, may not these vessels even now be supplied with self-bailing boats, in which the liability to capsize is greatly diminished by reason of their ability to immediately free themselves of any water they may ship?

For effecting line communication with stranded vessels our Service chiefly employs the Lyle gun, named after Capt. D. A. Lyle, of the Ordnance Department of the United States Army, who devised it. It is to be found in every station except the houses of refuge. But the Hunt gun, devised by Mr. Edmund S. Hunt, of Massachusetts, and the Cunningham rocket, invented by Mr. Patrick Cunningham, of the same State, have been recently furnished to a few stations where the outlying bars are so far off shore that vessels may possibly strand beyond the range of the Lyle gun. This has been done, not in the belief that the beach-apparatus can be effectually used at any distance beyond this range, but with the hope that a line, if thrown from the shore to a wreck, might be used to effect the passage of a boat or a life-car, or that some other means for rescue might be improvised. The Lyle gun is of bronze, with a smooth $2\frac{1}{2}$ -inch bore, weighs, with its carriage 185 pounds, and carries a shot weighing 17 pounds. This projectile is a solid elongated cylinder $14\frac{1}{2}$ inches in length, into the base of which is screwed an eye-bolt for receiving the shot-line, the bolt projecting sufficiently beyond the muzzle of the gun to protect the line from being burned off in firing. When the gun is fired the weight and inertia of the line cause the projectile to reverse. The shot-lines used are of three sizes, designated by the numbers 4, 7, and 9, being respectively $\frac{4}{32}$, $\frac{7}{32}$, and $\frac{9}{32}$ of an inch in diameter. Any charge of powder can be used up to the maximum of 6 ounces. A range of 695 yards has been obtained with the No. 4 line under favorable circumstances. The range of the larger line is, of course, proportionately diminished. The No. 4 is only used where the vessel is thought to lie beyond the range of the larger lines, for the reason that it is not strong enough to sustain the hauling of the whip line on board—and an intermediate line has to be supplied, requiring the expenditure of time and strength—and because it is not so easily hauled upon by the shipwrecked sailors as the larger one. The Hunt gun is also of bronze, of about the same size and weight as the Lyle, and not very different from it, except that it has a bore an inch larger and is attached to its carriage-bed at the cascabel instead of resting on trunnions. Indeed, the peculiarity of the Hunt system is not in the gun, but in the projectile, which could be fired just as well from the Lyle gun if the latter were of sufficient caliber. This projectile consists of a cylindrical tube of tin, into one end of which is soldered a solid hemispherical piece of lead, which, when the projectile is placed in the gun, rests upon the cartridge, and upon discharge reverses its position like the Lyle shot and goes foremost. The shot-line, being fastened into a staple in the center of the inside surface of this piece of lead, is coiled in the tube until the cavity is nearly filled, being kept in place by a coating of paraffine, which is sufficiently adhesive for the purpose, but does not materially retard its paying out as the projectile flies. The tube has a capacity for 320 yards of No. 4 line. In the outer end is placed a diaphragm of pasteboard with a circular hole in its center

three-quarters of an inch in diameter through which a portion of the other end of the line hangs out. When the missile is placed in the gun 4 or 5 inches protrude beyond the muzzle. Upon this portion four trapeziform wings are soldered at regular intervals to control the flight. Before firing the protruding end of the incased line is tied to another line coiled in a can, or otherwise so arranged as to permit it to be taken out without entanglement. When the discharge takes place the line in the can by its inertia and weight causes the line in the projectile to pay out, and when the latter is exhausted furnishes the supply for the remainder of the flight. The range obtained is about 40 yards greater than can be had with the Lyle projectile. The Massachusetts Humane Society uses this system altogether. The United States Service prefers the Lyle system, because where extreme range is not required it conveys a larger and stronger line to the shipwrecked; because it does not require the use of an intermediate line for hauling on board the whip line (Mr. Hunt claims that the line he uses is strong enough, but I should not dare to trust it), and because the projectile can be used any number of times, while the Hunt projectile after once being fired, either in drill or service, has to be returned to the manufacturer to be refilled, or a new one must be obtained, involving expense and trouble.

The Cunningham rocket system may be said to be an application of the Hunt projectile to a rocket. It consists of a powerful rocket, at the rear end of which is a female screw that receives the pointed end of a sheet-iron tube 5 feet 9½ inches in length and of equal diameter with the rocket. This tube is packed with 800 yards of No. 4 shot-line, which is connected with a shore line in the same manner as in the Hunt system, and is paid out in flight as from the Hunt projectile. The tube also takes the place of the stick in other rockets. The shore-line can be of any size. The range of the rocket with a No. 4 shore line is from 700 to 1,000 yards, which is diminished with other lines according to their sizes. With any line it exceeds that of any other rocket I have seen.

Several considerations have determined the choice of the gun for general use in the Life-Saving Service in preference to the rocket, among which are the following:

(1) Within its range it performs the desired service equally as well as any rocket at much less expense. The cost of the Lyle gun and all its appurtenances, exclusive of projectiles, is \$87.83. The lowest cost of any efficient rocket with appurtenances that I know of is not much less. The only expense attending the use of the gun is the cost of the cartridge, say half a dime, except when occasionally a shot is lost, which can be replaced for \$2. When a rocket is fired several dollars are expended. These facts are of consequence when considered in connection with the utility of frequent drilling.

(2) The gun is very easily handled and readily prepared for firing. Everything can be done almost as well in the dark as in the light, and,

if the weather be cold, without taking off the mittens. The manipulation of the rockets I have seen and experimented with is not so simple.

(3) A rocket must be given considerable elevation in firing, whereby the line is carried high in the air—usually far above the stranded vessel—where it is exposed to the force of the wind, making it liable, in falling, to float wide of the mark and fail to drop across the vessel. The gun, on the other hand, can be given any elevation—even be depressed below a horizontal position if fired from a cliff—and the charge of powder can be graduated according to the distance the vessel lies from the shore, thereby greatly reducing the chance of failure.

A recent incident admirably illustrates the adaptability of the gun to exceptional situations. In the great storm of September last the keeper of the Hunniwell's Beach Station, on the coast of Maine, was notified that a wrecking crew of fifteen persons who were at work upon a vessel which had some time before struck upon Glover's Rock, some 5 miles distant from the station and out of sight, had hoisted a signal of distress. He put a heaving-stick, the Lyle gun, a shot-line, a whip-line, a breeches-buoy, and a spare line into the surf-boat, and with his crew set out for the rock. Arriving, he found the wreckers in danger of being engulfed by the growing sea, and that the boat could not approach near enough to enable him to reach the rock with the heaving-stick. He therefore anchored his boat, set the shot-line box on the stern, lashed the gun upon the after thwart, loaded it with a 1-ounce cartridge of powder, and fired, casting the line almost into the hands of the imperiled men. It was found impossible, however, to take them off with the breeches-buoy without great risk of their being dashed upon the projecting points of the rock. Fortunately there was a small dory upon the rock, by means of which, with the use of the line, the whole number was drawn in six trips safely to the surf-boat, which took them ashore through a sea which the keeper describes as as heavy as he ever saw. In the same storm the crew of the Lewes Station, Delaware, fired the gun from the upper window of a fish-house and landed the crew of a vessel into the loft with the breeches-buoy.

For a vehicle in which to transport people from a wreck to shore after line communication has been established, the breeches-buoy is generally used as in other countries. The life-car (which I believe to be the invention of Mr. Joseph Francis, of New Jersey, although this is disputed by Capt. Douglas Ottinger, of the Revenue Marine Service, who claims to have devised it) is sometimes taken, however, especially where many persons are to be landed, and where the distance is too great to use the breeches-buoy. The car is a covered boat, made of corrugated galvanized iron, furnished with rings at each end, into which hauling-lines are bent, whereby the car is hauled back and forth on the water between the wreck and the shore without the use of any apparatus. It is supplied, however, with bails, one near each end, by which it can be suspended from a hawser and passed along upon it

like the breeches-buoy, if found necessary, as is sometimes the case where the shore is abrupt. The cover of the boat is convex, is provided with a hatch, which fastens either inside or outside, through which entrance and exit are effected. Near each end it is perforated with a group of small holes, like the holes in a grater, punched outward, to supply air for breathing, without admitting much if any water. It is capable of containing six or seven persons, and is very useful in landing sick people and valuables, as they are protected from getting wet. On the first occasion of its use it saved two hundred and one persons.

In all other respects than those noted the beach-apparatus is the same as is used elsewhere.

A difficulty that has not infrequently seriously obstructed the operations of rescue, and which, I suppose, is familiar to all institutions which use the apparatus, is the inability of the ship's company to intelligently and promptly co-operate with the rescuing force. Improvidence has been imputed to sailors as a characteristic to an extent that is probably unjust. However that may be, it is certain that as a rule they do not in advance make the preparation for the emergencies of shipwreck that instinctive regard for their own safety would be expected to prompt. One would naturally suppose that every intelligent sailor, at least every officer of a vessel, aware that there existed upon the coasts of nearly every country stations supplied with means of aiding their rescue if they should unhappily be cast ashore, would carefully acquaint himself with the methods employed. This is so far from being the case that tedious delays in the work of deliverance are frequently occasioned by their ignorance, which in some instances in the history of our service have nearly proved fatal. The inscriptions printed in English and French upon the tally-boards or tablets which are sent out with the whip-line and hawser are explicit enough as to what is to be done after they are received, but they can not always be read, sometimes on account of darkness, sometimes because no one on board is familiar with either the French or the English language. Again, I have known instances in which sailors did not even know what to do with the shot-line sent them, and have with difficulty been made to understand that they were to haul it aboard. In dealing with this trouble we have followed the example of the rocket service of the Board of Trade in England and published a pocket manual containing complete instructions for co-operating with the station crews and showing by plain cuts the manner of setting up the parts of the apparatus sent on board. To this is added a list of the stations, with their locations, and other useful information relating to the service. Each book is provided with a receptacle for cards, papers, etc., which makes the officers of vessels glad to get them and carry them in their pockets on account of the convenience they afford for the care of their small papers. Their value has been illustrated on several occasions of rescue, when the captains have stood, book in hand, and given directions from it as the operations progressed.

This device, however, has only partially remedied the evil. The distribution is not sufficiently general; in several nations not being made at all. I understand that in England and some other countries a knowledge of these matters is required as a qualification in officers of vessels. If the other maritime nations would also require this, the difficulties experienced would largely disappear. Emergencies arise, however, where, although the sailors well understand the part they have to take, progress would be greatly facilitated if there were some means of communicating between them and their co-operators on the shore, particularly at night. Such means would be advantageous not only on such occasions, but at other times, as when the shipwrecked, lured by the comparatively smooth appearance of the surf as viewed from seaward, attempt to land in their own boats, while it can be plainly seen from the shore that the venture must be fatal. I think I can safely say that more lives are now lost within the scope of station operations through these attempts than from any other cause.

The telephone lines which now extend along nearly all those portions of the coast on which contiguous stations are located make it easy to quickly concentrate the crews of two or more stations at any point where additional force is required, as in the case when several wrecks occur at the same time in the same neighborhood; and the double equipment at each station expedites this concentration by permitting the re-enforcing crew to come unencumbered. A notable illustration of the benefit of such a combination of crews was the work achieved near Cape Henlopen in the great storm of September 10, 11, and 12 last, one of the most destructive that has ever visited our coast, when the crews of three stations, under the leadership of Captain Clappitt, of the Lewes Station, rescued the crews of 22 stranded vessels—194 persons—by the use of every form of rescuing appliance; 23 being landed with the surf-boats, 16 with the self-righting life-boat, 135 with the breeches-buoy, and 20 with the life-car—not a life being lost.

The telegraph and railroad systems of the country are also used to secure the services of the crews at scenes of rescue far remote from their stations. On two occasions the Cleveland crew has been called to Cincinnati, Ohio, and Newport, Ky., a distance of 240 miles, to render aid to the sufferers from inundations in the Ohio Valley. On the first occasion 1,200 persons were succored, on the second over 800. The crew of the Sturgeon Bay Ship-Canal Station, Lake Superior, was once called at night to Chocoday Beach, near Marquette, Mich., a distance of 110 miles. Proceeding by special train running at the highest attainable speed, and taking with them their beach apparatus and boat, they reached the beach at midnight, and through a blinding snow-storm and in spite of bitter cold, were able to board two stranded vessels and rescue 24 persons after every effort of the citizens had failed. Shorter journeys of from 15 to 30 miles by rail are frequently undertaken, especially where the railway skirts the shore, as it does on many parts of the coast.

At isolated stations, where aid from another station is not available, the keepers have authority to accept the assistance of volunteers, who are paid \$3 each per day upon the certificate of the keeper, approved by the district superintendent.

After rescue the shipwrecked people are taken to the station and provided with every comfort it affords. They find hot coffee and dry clothing awaiting them, with cots for those who need rest and sleep. If any are sick or maimed, as is frequently the case, they are nursed and cared for until sufficiently recovered to safely leave; in the meantime medical aid is called in if practicable. For wounds and ailments requiring only simple and well-known remedies, recourse is had to the medicine-chest, which is stocked with restoratives and medicines that can be safely used and provided with a hand-book of directions. The sojourner also finds at hand a very fair library of books to relieve the tedium of his enforced detention.

The dry clothing is taken from a supply constantly kept on hand by the Woman's National Relief Association, an organization established to afford relief to sufferers from disasters of every kind, and the libraries are the donations of the Seamen's Friend Society and of sundry benevolent individuals. Several newspaper publishers send their papers regularly to many of the stations. The food is prepared by the keepers or the station messes, who are re-imburshed by the recipients if they have the means; if not, by the Government.

Occasionally unfortunate victims of shipwreck reach the shore to all appearances dead. In such cases the life-saving crews attempt their restoration according to the method for restoring the apparently drowned, in which they have been drilled as already described. When the Service was first organized we adopted the system then, and I believe, still employed by nearly all life-saving organizations. It is known as the Hall-Silvester method, containing features of each of the systems, formulated by Dr. Marshall Hall and Dr. H. R. Silvester. A discussion of the subject in the Life-Boat Journal (February number, 1873), in which the "direct method," as it is called, recommended by Dr. Benjamin Howard, of New York, was brought to my attention, led to the adoption of the latter system with some slight modifications suggested by Dr. John M. Woodworth, late Surgeon-General of the United States Marine Hospital Service. Dr. Frank Baker, professor of anatomy in the medical department of Georgetown University, who is also connected with the Life-Saving Service, has at my request made a very thorough examination of the various systems, and has submitted an exhaustive report upon them. He states his general conclusion as follows:

"The different methods all have in view the expulsion of the vitiated air in the lungs and the introduction of fresh. To effect this, respiratory movements are stimulated. Hall does this by turning the patient on his face and compressing the thorax by pressure on the back, then turning him on the side and allowing the thorax to expand. The ex-

pulsion of air is but slight, but it is an excellent method of expelling fluids from the stomach and lungs. In Silvester's method the arms are first stretched at full length upward beside the head, then carried downward, pressing the elbows against the thorax. These motions are thought to alternately expand and contract the chest. It is difficult to understand how the first movement can produce an effective expansion, as the scapulæ are not fixed, and the muscles passing directly from the arms to the chest are inserted so high up on the thorax as to have but little, if any, effect. The second movement produces an expulsion of air, but not as effectively as in the method of Howard, by which the lower thorax and the abdomen are compressed, the diaphragm consequently pushed up, and the lungs emptied. This method is believed to be more efficient than any other that has been employed. No active inspiratory movement is made, the expansive resiliency of the chest-wall springing back after compression being sufficient."

During the twelve years in which the "direct method" has been practiced in the Service one hundred and eighteen cases have come under the treatment of our crews. In this number of attempts at resuscitation sixty were successful and fifty-eight unsuccessful. In some of the successful instances several hours elapsed after the patient was taken from the water before natural respiration was induced. Success has followed even after the patient had been pronounced dead beyond hope by reputable physicians. As to the results obtained by other methods I have been unable to secure any information.

Next to the success of the Service in saving life that of its efforts in the saving of property is conspicuous. This is accomplished in getting vessels afloat when stranded, a work in which the surfmen are experts; in extricating them from dangerous situations; in pumping them out when leaking; in running lines between wrecked vessels and tugs when it can not be done with ordinary boats; in rendering assistance in various ways, and in warning off vessels standing into danger. In the majority of casualties the surfmen succeed in saving the vessels and cargoes without any other aid than that of the ships' crews. When this is impossible they act in conjunction with the revenue-cutters—which are equipped for rendering assistance in such cases—if these vessels are available, or assist, if necessary, any other relief sent.

The tabular statistics published in the annual reports of the Service show, in reference to imperiled property, only the amount imperiled, the amount saved, and the amount lost within the field of station operations; but, in order to convey here a better idea of the value of the labors of the life-saving crews, I have had prepared a statement of their salvage work during the years 1888 and 1889. This statement shows that in 1888 the station crews saved, without any outside assistance, 191 vessels, valued, with their cargoes, at \$1,495,550. The number of persons on board was 898. The number of vessels which they assisted other effort in saving was 88, the value involved being \$2,170,500, and the number of persons on board 654. The aggregate number of vessels, therefore, which they saved and assisted to save was 282, the amount

of property involved \$3,666,050, and the number of persons on board 1,552. They also rendered assistance of less importance to 210 other vessels. In 1889 the crews saved, without outside assistance, 172 vessels, valued, with their cargoes, at \$1,127,295. The number of persons on board was 823. The number of vessels which they assisted other effort in saving was 85, the value involved being \$2,114,535, and the number of persons on board 623. The aggregate number of vessels, therefore, which they saved and assisted to save in this year was 257, the amount of property involved \$3,241,830, and the number of persons on board 1,446. Assistance of minor importance was rendered to 253 other vessels. For all this it must be remembered they received no salvage.

But their usefulness as salvors of property does not end here. By the aid of the telephone lines, all of which are connected with telegraph stations, they give to the maritime exchanges and underwriters early notice of disasters, with information as to the condition of the vessels, the extent of additional aid required, if any, etc., or send directly to the nearest available place for tugs or other needed help, thus securing prompt assistance where delay would involve serious and perhaps fatal consequences. More valuable than this, perhaps, is the service rendered both to humanity and commerce in the prevention of disasters by the warning signals of the night and day patrol. Of course no estimate of the lives and property saved in this manner can be made. We only know the number of such warnings given. Last year they were 217. They have reached as high as 240 in a year, and during any of the last six years have not been less than 200.

It is pertinent to inquire what it costs to maintain this system, and whether the results produced are proportionate to the outlay. The expenditures vary considerably from year to year, as do also the aggregate results produced, the difference depending upon the number of new stations added to the establishment and upon numerous contingencies. A summary of the expenditures and operations of any one year would therefore but imperfectly answer the inquiry. Such a statement, however, will be found interesting in other respects, and I give it in regard to the last fiscal year, as extracted from the annual report, not yet printed: The total expenditures were \$965,907.18, all but \$163,454.03 of which was expended in the payment of the compensation of the officers and men and that of the clerical force—\$712,567.95 being paid to the keepers and surfmen alone. There were 378 disasters to documented vessels within the scope of the Service. There were on board these vessels 3,106 persons, of whom 38 were lost. The estimated value of property involved was \$6,343,880. Of this amount \$4,995,130 was saved and \$1,348,750 lost. The number of vessels totally lost was 63. In addition to the foregoing there were 150 casualties to smaller craft—sailboats, row-boats, etc.—on which were 320 persons, of whom only 4 were lost. The property involved in these instances is estimated at \$72,895, of which \$59,310 was saved and \$13,585 lost.

The results of all the disasters within the scope of the Service aggregate, therefore, as follows:

| | |
|-------------------------------------|---------------|
| Number of disasters..... | 528 |
| Value of property involved..... | \$6, 416, 775 |
| Value of property saved..... | \$5, 024, 440 |
| Value of property lost..... | \$1, 392, 335 |
| Number of persons involved..... | 2, 426 |
| Number of persons lost..... | 42 |
| Number of vessels totally lost..... | 63 |

To this statement should be added 787 shipwrecked persons succored at the stations, the number of days' succor afforded being 1,732.

There were landed by the surf-boats 435 persons, by the self-righting life-boats 74, by the river life-skiffs (at Louisville) 56, by other station boats 179, by the breeches-buoy 193, by the life-car 10, by other means 40. There were besides 24 persons rescued who had fallen from wharves, piers, etc. The details relative to the saving of property, etc., having already been stated.

It may be mentioned that the loss of life from documented vessels last year was unusually large. The year before it was only 12. The average loss per annum since the introduction of the present system is 26.

The following is a general summary of the statistics of disasters that have occurred within the scope of the Service from the introduction of the present system in 1871 to the close of the last year:

| | |
|--------------------------------------|--------------------|
| Number of disasters..... | 4, 924 |
| Value of vessels..... | \$55, 473, 190. 00 |
| Value of cargoes..... | \$26, 246, 584. 00 |
| Value of property involved..... | \$81, 719, 774. 00 |
| Value of property saved..... | \$60, 352, 092. 00 |
| Value of property lost..... | \$21, 367, 682. 00 |
| Number of persons involved..... | 42, 864 |
| Number of lives lost..... | *505 |
| Number of persons succored..... | 7, 903 |
| Number of days' succor afforded..... | 20, 837 |
| Cost of maintaining the Service..... | \$9, 172, 208. 86 |

We would probably obtain a better idea of the relation between the cost of maintenance and the results by taking the aggregate during the seven years since the adoption of the present rate of wages, commencing July 1, 1883, and afterwards giving the average per station. In 1883 there were 194 stations; 1884, 201; 1885, 203; 1886, 211; 1887, 218; 1888, 222; 1889, 225; making a total of 1,474 stations. The general cost and results may be summed up as follows:

| | |
|---|--------------------|
| Cost during seven years..... | \$5, 791, 184. 05 |
| Number of disasters..... | 3, 232 |
| Value of property involved (vessels and cargoes)..... | \$52, 441, 120. 00 |
| Value of property saved..... | \$42, 286, 800. 00 |
| Value of property lost..... | \$10, 154, 320. 00 |

* This includes 30 lost from undocumented vessels (small craft).

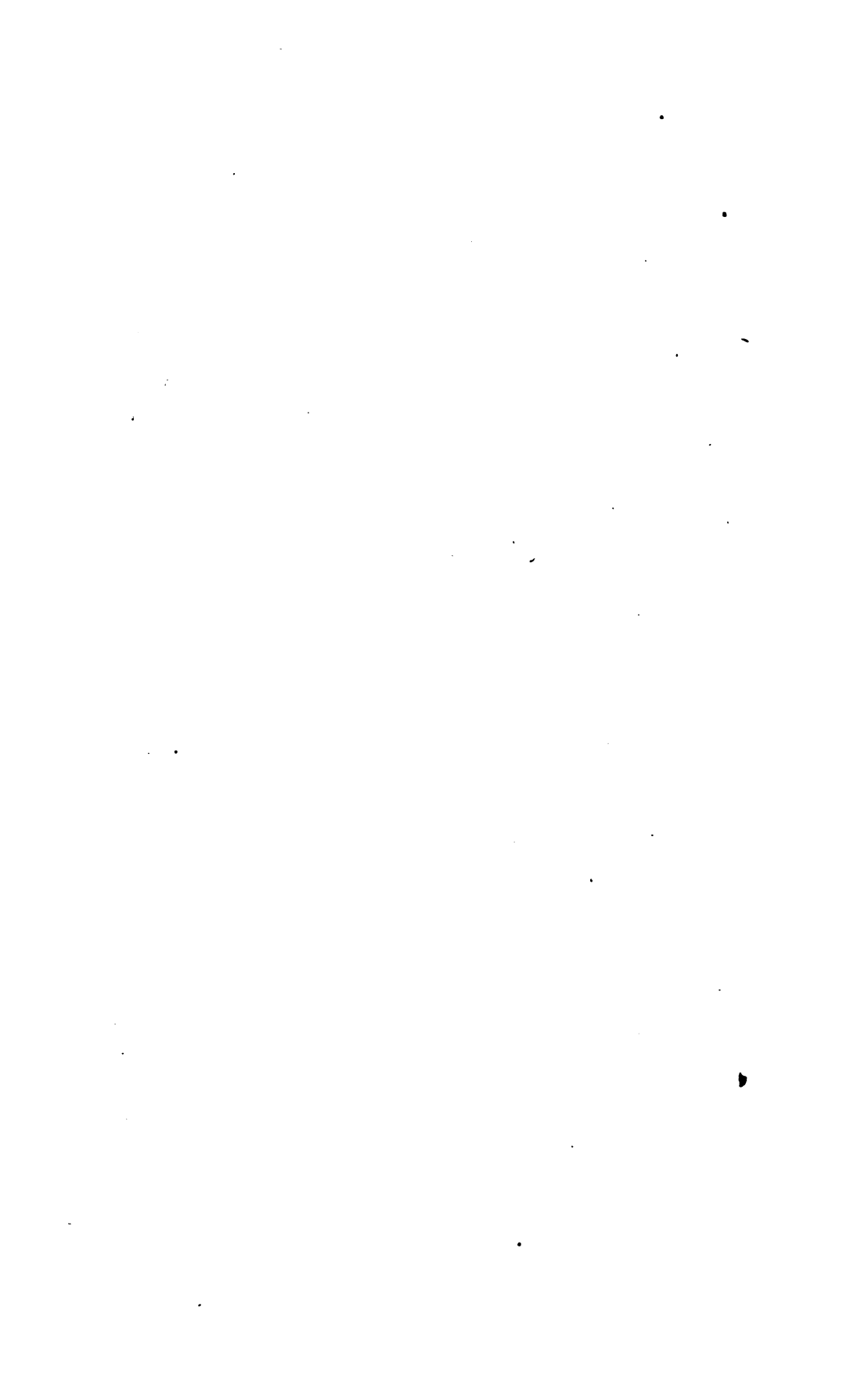
| | |
|---|---------|
| Number of persons on board..... | 27, 766 |
| Number of persons lost..... | 196 |
| Number of shipwrecked persons succored at the stations..... | 4, 831 |
| Number of days' succor afforded..... | 12, 402 |
| Number of disasters resulting in total loss of vessels..... | 482 |

The average number of stations was 210, and the average annual cost of maintenance per station was therefore \$3,928.89. Other average results per station per annum are as follows :

| | |
|---|---------------|
| Number of disasters..... | 2. 19 |
| Value of property involved..... | \$35, 577. 42 |
| Value of property saved..... | \$28, 688. 47 |
| Value of property lost..... | \$6, 888. 95 |
| Number of persons involved..... | 18. 97 |
| Number of persons saved..... | 18. 84 |
| Number of persons lost (being one person to every seven stations)..... | . 13 |
| Number of persons succored..... | 3. 27 |
| Number of days' succor afforded..... | 8. 41 |
| Number of disasters resulting in total loss of vessels (being one to every three stations)..... | . 33 |

It is to be regretted that no data exist from which a definite comparison of the results of disasters to vessels upon the coasts, before and after the establishment of stations thereon, can be drawn. Unfortunately no provision of law was made for the collection of statistics pertaining to disasters beyond the scope of the service until 1874, when authority was given to gather them. From the time, however, that the present life-saving system began its work upon the coasts of Long Island and New Jersey, in 1871, all-important data relating to casualties within its province have been secured. In 1849 and 1850, as I have before stated, the Government had erected upon these coasts boat-houses containing surf-boats and other life-saving appliances, each in charge of a keeper, for such effort as might be volunteered on occasions of shipwreck (a system somewhat similar to other existing volunteer systems), and although no definite record of the results of this experiment was kept, it is known that many lives were saved through the facilities it afforded. The number lost can not be ascertained. I have positively learned, however, of the loss of 512 persons during the twenty years from 1850 to 1870, and have authentic information that these figures indicate but a fragment of the reality. Yet they afford the basis for some comparison. They give, for instance, an average annual loss of at least 25 lives. During the eighteen years of the existence of the present system the number lost upon this section of the coast has been 119, an annual average of only 7—a reduction of about 80 per cent.—which would doubtless be largely augmented if the facts could be ascertained, and this, notwithstanding the number of disasters has greatly increased as a consequence of the growth of the commerce of the country, particularly that of New York and Philadelphia.

It will be observed, too, that the ascertained loss of 512 lives during the twenty years of the volunteer system, although confined to a very



From the author Jan. 21, 1904

55TH CONGRESS, }
2d Session. }

SENATE.

{ DOCUMENT
No. 270.

W. A.
W. A. NEWELL.

LETTER

FROM

THE SECRETARY OF THE TREASURY,

TRANSMITTING

REPORT OF THE GENERAL SUPERINTENDENT OF THE LIFE-SAVING SERVICE RELATIVE TO THE CLAIMS OF W. A. NEWELL AS THE ORIGINATOR OF THE SYSTEM OF THE LIFE-SAVING SERVICE OF THE UNITED STATES.

MAY 18, 1898.—Referred to the Committee on Commerce and ordered to be printed.

TREASURY DEPARTMENT,
OFFICE OF THE SECRETARY,
Washington, D. C., May 17, 1898.

SIR: I have the honor to acknowledge the receipt of your communication, under date of March 29, 1897, inclosing "House memorial of the legislature of the State of Washington, setting forth and acknowledging the claims of W. A. Newell as the originator of the system of life-saving service of the United States," and requesting to be furnished with suggestions touching the facts in the case and the propriety of Congressional action in the matter.

In reply I have to state that the papers were referred to the General Superintendent of the Life-Saving Service for report, which has been received and is herewith transmitted for the information of the committee.

The memorial is herewith returned.

Respectfully, yours,

L. J. GAGE,
Secretary.

The CHAIRMAN COMMITTEE ON COMMERCE,
United States Senate.

TREASURY DEPARTMENT,
OFFICE GENERAL SUPERINTENDENT LIFE-SAVING SERVICE,
Washington, D. C., May 17, 1898.

SIR: I have the honor to acknowledge the receipt of your reference of a communication from the Committee on Commerce of the United States Senate, under date of March 29, 1897, inclosing "House memorial of the legislature of the State of Washington, setting forth and

acknowledging the claims of W. A. Newell as the originator of the system of life saving service of the United States," and requesting to be furnished such suggestions as may be deemed proper touching the facts in the case and the propriety of Congressional action in the matter.

The memorial, which appears to be a joint memorial of the senate and house of representatives of the State of Washington, is as follows:

JOINT MEMORIAL No. 12, legislature of the State of Washington.

Whereas the legislature of the State of New Jersey did, at its last session, in the year of 1896, adopt the following preamble and resolutions, to wit:

Preamble and resolution setting forth and acknowledging the claims of William A. Newell as the originator of the system of Life-Saving Service of the United States, and thanking him for his agency therein.

Whereas, William A. Newell, a representative in Congress from the Second Congressional District of this State to the Thirtieth Congress of the United States, did, on the third day of January, 1848, introduce the following resolution, viz:

Resolved, That the Committee on Commerce be instructed to inquire whether any plan can be devised whereby the dangerous navigation along the Coast of New Jersey, between Sandy Hook and Little Egg Harbor, may be furnished with additional safeguards to life and property, and that they report to the House by bill or otherwise, which was passed without opposition, and

Whereas the committee made no report whatever upon said resolution, and William A. Newell did on the 3d day of August, 1848, make a carefully prepared speech detailing his system at length, as is recorded in the Appendix to the Congressional Globe of that date, and on the 9th of the same month did offer the following amendment to the light-house bill, to wit:

For providing surf boats, lifeboats, rockets, carronades, and other necessary apparatus for the better preservation of life and property from shipwreck along the coast of New Jersey, between Sandy Hook and Little Egg Harbor, \$10,000, the same to be expended under the supervision of such officer as may be designated by the Secretary of the Treasury, which passed unanimously, and

Whereas, William A. Newell, at the second session of the Thirtieth Congress, introduced and secured the passage of an amendment appropriating \$20,000 for the extension of the system from Little Egg Harbor to Cape May, and the Atlantic coast of Long Island, Fire Island, and Montauk Point; and did, on July 14, 1866, when again in Congress, deliver a speech in the House of Representatives, calling for an additional appropriation of \$20,000, and strongly urging the justice of paying the life-saving crews, which propositions were adopted, and

Whereas, it is thus made clearly apparent that William A. Newell did, while a representative from this State, originate the system which has been instrumental in saving many thousands of human lives from shipwreck, and an untold amount of property from destruction; therefore be it

Resolved by the senate and house assembly of the State of New Jersey, That we do hereby recognize William A. Newell as the true author and originator of the Life-Saving Service, and that the thanks of this legislature be, and are hereby, extended to him for his agency in establishing this most successful instrumentality in the cause of humanity;

Resolved, That these resolutions be spread upon the minutes, and that the governor of this State be requested to forward to the Hon. William A. Newell an original copy of the same, and

Whereas, William A. Newell was governor of Washington Territory and is now an honored citizen of this State, and

Whereas, Washington is preeminently distinguished as a maritime State, by reason of ocean frontage, straits, huge inland salt seas, navigable rivers, and lakes; and as many of our people are engaged in commercial and seafaring pursuits and thus interested in all measures tending to diminish dangers to life and property from shipwreck; therefore be it

Resolved by the senate and house of representatives of the State of Washington, That we do heartily approve of, and indorse the action of the legislature of the State of New Jersey in according to William A. Newell the honor of originating and carrying into successful operation the Life-Saving Service of the United States.

Resolved, That an engrossed copy of these proceedings be transmitted to Governor Newell; also, that copies thereof be forwarded to our Senators and Representatives in Congress, with the request that they secure from the Congress of the United States, where the system was inaugurated, an indorsement of these testimonials of

the State of New Jersey, and of Washington, so eminently merited and so long withheld.

And be it further resolved, That a copy of this memorial be sent to the legislature and to the governor of New Jersey.

Passed house, February 22.

Passed senate, March 3.

It will be seen that the testimonial of the State of New Jersey, thus approved by the legislature of Washington, contains several preliminary statements which are made the basis of the action taken by both legislatures. To properly comply with the request of the committee, therefore, it will be necessary to consider these statements in detail in connection with the facts in the case, as they are found upon examination to exist. It is to be regretted that to properly do this will require considerable time and space. In view, however, of the importance of the subject no reasonable effort should be spared to make the inquiry impartial and exhaustive, to the end that a correct and just conclusion may be reached.

The first of the statements referred to is to the effect that Mr. Newell, on January 3, 1848, while a representative from the Second Congressional district of New Jersey to the Thirtieth Congress, introduced a resolution instructing the Committee on Commerce to inquire "whether any plan can be devised whereby the dangerous navigation along the coast of New Jersey between Sandy Hook and Little Egg Harbor may be furnished with additional safeguards to life and property," which was passed without opposition. This statement is found, upon reference to the Congressional Globe, first session, Thirtieth Congress, page 94, to be correct.

The second statement is to the effect that the committee made no report upon said resolution, and that Mr. Newell on August 3, 1848, made a carefully prepared speech detailing his system at length and on the 9th of said month offered an amendment to the light-house bill, which amendment included an appropriation of \$10,000 to be expended under the supervision of such officer as might be designated by the Secretary of the Treasury "for providing surfboats, lifeboats, rockets, carronades, and other necessary apparatus for the better preservation of life and property from shipwreck along the coast of New Jersey between Sandy Hook and Little Egg Harbor," which passed unanimously.

In regard to this statement it is found that the Committee on Commerce made no direct report on Mr. Newell's resolution. His speech upon the subject of the preservation of life and property from shipwreck on the New Jersey coast is found in the appendix to the Congressional Globe, first session, Thirtieth Congress, pages 1087-1089, and immediately following it is a statement that on August 9 Mr. Newell offered an amendment to the light-house bill which reads as follows:

For providing surfboats, rockets, carronades, and other necessary apparatus for the better protection of life and property from shipwrecks on the coast of New Jersey, between Sandy Hook and Little Egg Harbor, ten thousand dollars; the same to be expended under the supervision of such officer of the revenue marine corps as may be detached for this duty by the Secretary of the Treasury.

A comparison of this provision with the quotation in the memorial, shows the following differences: The quotation contains the word "lifeboats" among the articles described as necessary apparatus, which word is not in the original; the word "preservation" is substituted for the word "protection" in the original; the word "along" is substituted for the word "on" in the original; the words "of the revenue marine

corps" which appear in the original are omitted in the quotation; and the word "designated" is substituted for the words "detached for this duty" which appear in the original.

It is added in the statement that the amendment was unanimously adopted. It appears without change in the act approved August 14, 1848.

Except as above noted the second statement in the memorial is correct.

The third statement is to the effect that Mr. Newell at the second session of the Thirtieth Congress introduced and secured the passage of an amendment appropriating \$20,000 for the extension of the system "to Cape May and the Atlantic coast of Long Island, Fire Island, and Montauk Point," and that on July 14, 1866, when again in Congress, he delivered a speech calling for an appropriation of \$20,000 and strongly urging the justice of paying the life-saving crews, and that these propositions were adopted.

In regard to this statement it is found that on March 3, 1849, in the second session of the Thirtieth Congress, Mr. Newell offered an amendment to the light-house bill, providing \$10,000 for life-saving apparatus for the better preservation of life and property from shipwreck "along the coast of New Jersey, between Little Egg Harbor and Cape May," which was agreed to. (Congressional Globe, second session, Thirtieth Congress, p. 693; 9 Stat., p. 381.)

The language of the amendment was as follows:

For providing lifeboats, life cars, carronades, lines, rockets and other necessary apparatus for the better preservation of life and property from shipwreck along the coast of New Jersey, between Little Egg Harbor and Cape May, ten thousand dollars, to be expended under the direction of such officer of the Revenue-Marine Service as may be designated for that purpose by the Secretary of the Treasury.

It will be seen that the amendment appropriates \$10,000 instead of \$20,000 and that it contains nothing relative to the extension of the system on the "Atlantic coast of Long Island, Fire Island, and Montauk Point." The appropriation was limited to that portion of the coast extending between Little Egg Harbor and Cape May. The former \$10,000 appropriation of August 14, 1848, had provided for the New Jersey coast from Sandy Hook to Little Egg Harbor; this one provided for the remainder of the coast of that State.

It appears, however, that the bill itself contained an item "for providing surfboats, lifeboats, and other means for the preservation of life and property shipwrecked on the coast of the United States, ten thousand dollars, to be expended under the control and direction of the Secretary of the Treasury."

This item appears to have been adopted and reported by the Committee on Commerce through the influence of Hon. Joseph Grinnell, of Massachusetts, who was a member of the committee and had charge of the bill, and other members of Congress whose aid had been solicited, in response to a memorial from the merchants and others of the city of New York, praying that the amount named be placed at the disposal of the Life-Saving Benevolent Association, a society which was to be organized in that city. The money was expended upon the coast of Long Island, under the direction of the association referred to, which was incorporated by the legislature of New York by act of March 26, 1849. The history of the whole matter was published in a report of that institution in 1853, a copy of which is in the library of this office. The statement is therefore in error in ascribing to Mr. Newell the credit of securing \$20,000 for life-saving purposes to be expended in extending the system "to Cape May and the Atlan

coast of Long Island, Fire Island, and Montauk Point," the amount which he secured being \$10,000, to be expended upon the New Jersey coast alone. In advocating his amendment, however, in a speech made February 17, 1849, he also spoke in favor of the other item, stating that he did so in response to the receipt of numerous letters soliciting his influence in the matter.

Seventeen years later Mr. Newell, being a member of the Thirty-ninth Congress, on July 14, 1866, made a speech in support of an amendment offered by Mr. O'Neill, of Pennsylvania, to the sundry civil appropriation bill, to provide \$10,000 for "additional station houses, lifeboats, and other appliances for the better preservation of life and property from shipwreck along the coast of New Jersey between Sandy Hook and Little Egg Harbor." In this speech Mr. Newell alludes to the amendment as the result of a resolution offered by him at the opening of the session. It appears that on December 5, 1865, Mr. Newell introduced a resolution, which was agreed to, instructing the Committee on Commerce "to inquire whether any further, and what means are necessary for the better preservation of life and property from shipwreck along the coast of New Jersey between Sandy Hook and Great Egg Harbor, and to report by bill or otherwise."

The amendment of Mr. O'Neill was probably offered in pursuance of this resolution. The amendment was adopted. (Act of July 28, 1866, 14 Stat., p. 312.) In the same speech Mr. Newell strongly urged the justice of paying the life-saving crews. (Congressional Globe, first session Thirty-ninth Congress, part 5 and Appendix; p. 261 of Appendix.)

The statement is again in error in naming \$20,000, instead of \$10,000, as the sum Mr. Newell secured, and is also in error in stating that the proposition to pay the life-saving crews was adopted. Neither the bill nor the act as it was passed contained any provision for the payment of life-saving crews. As a matter of fact, the first provision for the employment and payment of crews was made in the act of July 15, 1870 (16 Stat., p. 292). At that time Hon. Charles Haight, of New Jersey, having, at the instance of a resolution of the legislature of his State, moved an amendment to an appropriation bill providing for the employment of crews of surfmen and failed to secure its adoption, a substitute was proposed and vigorously urged by Hon. S. S. Cox, providing for the employment of such crews during the three winter months of the year at alternate stations. This proposition was carried.

Previous to 1870 the reliance on occasions of shipwreck was upon volunteers. In the neighborhood of some of the stations a sufficient number of men with surfing experience to form a boat's crew had a sort of understanding that they would be on hand when their services were needed; in other localities the dependence was upon such crews as could be improvised from the scattered population of the coast for any occasion of service. After the appointment of custodians of the station houses, or keepers, as they were called, was authorized by the act of December 14, 1854 (10 Stat., p. 597), which act was passed at the time when Mr. Newell was not in Congress, and was the result of a recommendation of the Treasury Department made in response to a request from Hon. Hannibal Hamlin then a Senator from Maine, these keepers endeavored to have an arrangement with a body of surfmen upon whom they could call to man their boats when occasion required. It was these volunteer crews whose payment Mr. Newell advocated twelve years later. He wanted them paid for each occasion of service, as such crews were at that time being paid by the

Massachusetts Humane Society and the Royal National Lifeboat Institution of Great Britain, as is evidenced by a resolution which he introduced on December 3, 1866, which reads as follows:

Resolved, That the Committee on Commerce be requested to inquire into the expediency of making an appropriation for the erection of a light-house at Matawan Point, on Raritan Bay, in the State of New Jersey; and also of providing for a per diem compensation for the crews connected with the life-saving stations on the coasts of Long Island and New Jersey for every day during which they may be actually employed, and that the committee report by bill or otherwise. (Congressional Globe, part 1, second session Thirty-ninth Congress, p. 5, December 3, 1866.)

He did not, however, secure the enactment of the measure, nor did he take any further action looking in that direction. It does not appear from anything he ever said or did in Congress that he at any time contemplated the employment and payment of regular crews such as now man the stations.

From the foregoing recital of facts it will be seen that the three statements contained in the New Jersey testimonial, which form the basis of the memorial or petition under consideration, are to some extent erroneous.

Upon these statements the testimonial declares it is made clearly apparent that Mr. Newell originated the Life-Saving Service system, and he was, therefore, by resolutions recognized as "the true author and originator" thereof, and the thanks of the State legislature were extended to him for his agency in establishing the same. The Washington memorial heartily approves and indorses the action of the New Jersey legislature in according to Mr. Newell "the honor of originating and carrying into successful operation the Life-Saving Service of the United States."

Mr. Newell's connection with the history of life-saving affairs in this country at that period was conspicuous and worthy of high commendation. He was a member of the Thirtieth, Thirty-first, and Thirty-ninth Congresses. In the first of his speeches, delivered August 3, 1848, he urged that at suitable points along the coast of New Jersey there should be provided surfboats for crossing bars where shallow water existed, carronades for throwing lines to vessels, and rockets for signals at night to show where to look for aid. He contended for means for the preservation of life from shipwreck upon the same principle and for the same reason that beacons are lighted and buoys are anchored at dangerous points of navigation. He declared that England protected her coast with lifeboats, and was certainly in advance of this country in providing means for the protection of life; and he also gave strong approval to the idea of conferring public honor by gold medals for acts of noble daring and duty performed by noncombatant citizens, as was done in England, and stated that he had not made this a part of the system he urged simply from want of sufficient familiarity with the forms of legislation.

The method of aiding the shipwrecked described above appears to constitute the only system Mr. Newell is found to have been connected with. At the very outset a good deal of uncertainty is suggested as to how much, if any, of that system he at that time really intended to be understood was his own by the following words employed by him in his very first speech. After describing the uses of the surfboat, carronade, and rocket, he said:

It is within my knowledge, from information derived from persons residing upon that shore, that had they heretofore possessed these means of rendering assistance in numerous cases of shipwreck they would have been instrumental in saving very many lives.

Whether he meant to imply that the means he proposed had been suggested to him by "persons residing upon that shore" is not altogether clear; but such an inference would seem to be not only fair, but is much strengthened by the fact that he never in any of his speeches spoke of them as his, as well as by the terms of a letter written by him to Capt. Douglas Ottinger in 1857, which is quoted hereafter in this report. However, whether the plan is identical with, or was the parent of, the Life-Saving Service system of the United States, and whether it was original with him or was a continuation or copy of plans previously in use, and whether or not he was the first to suggest or to advocate in and secure from Congress the appropriation of funds for the preservation of life and property from shipwreck, and was in fact the author of the Life-Saving Service system, can best be determined by reference to the records in regard to the origin and establishment of the service.

In a bound volume in the Department entitled, Documents relating to Light-Houses, 1789-1871, pages 93, 104, 133, 240, 383, 828, and 900-903, we find the data for the following brief sketch of the light-house system:

The act of August 7, 1789, imposed the general charge of the light-house system upon the head of the Treasury Department. On July 1, 1820, the duties of superintending and managing the Light-House Establishment were assigned to Stephen Pleasonton, Fifth Auditor. In the course of his administration he entered into an agreement with private parties to keep all the light-houses in repair and fitted up with supplies for the maintenance of lights for five years from January 1, 1833, and also made a similar contract for such purposes for five years from January 1, 1838.

Complaints were made in regard to the management of the system, and on January 26, 1838, the Secretary of the Treasury forwarded to the Senate, in response to a resolution, a copy of representations made to him relative to the light-houses of the United States, by the Messrs. Blunt, of New York, who stated that from their publication house there had been issued within fifty years thirteen editions of the American Coast Pilot, giving descriptions of the coasts and harbors of the United States, and the buoys, beacons, and light-houses. In their communication dated November 30, 1837, they said:

In the appointment of light-keepers it is often necessary that other qualifications besides the capacity to keep a light in good order should be considered, when the light-houses are in situations remote from settlements. It frequently happens that the keepers can render assistance to those who are shipwrecked, or to vessels in distress. This was taken into consideration when the merchants of New York recommended Mr. Smith as keeper of Fire Island light. He had been instrumental in saving many lives, and distinguished himself in rescuing the few survivors from the wreck of the *Mexico* last winter. Many of the keepers require a proper boat. We have known cases where a vessel in distress and very near the shore, was obliged to put to sea again, the keeper of the light being unable to board for want of a boat.

By act of July 7, 1838, a general inspection of the light-house system by naval officers was provided for in order that Congress might be furnished more exact information in regard to it. Lieut. William D. Porter, one of the officers assigned to this duty, in his report said: "Much can be done to alleviate the distressed seamen by having lifeboats stationed at places herein designated." The places he designated were seven in number. In June, 1845, the Secretary of the Treasury having procured the detail of two naval officers for the purpose, Lieuts. Thornton A. Jenkins and Richard Bache, instructed them to visit Great Britain and France to procure information which might tend to the improvement of the light-house system of the United States. They

visited Europe in the following August, and in their report, under date of June 22, 1846, they stated that the corporation having in charge the matter of lighting the port and harbor of Liverpool, "not satisfied apparently with their perfect system of lighting, etc., has further provided for the safety of seamen by adding a number of lifeboats to their charge." "We are aware," they said, "that this does not come strictly within the limits of our instructions; but finding it intimately connected with the light-house establishment, and having heard of the many and great benefits which have resulted from it as being a part of the most complete whole, we deem it but proper to refer to it in this connection." A further description of the method of using the boats, nine in number, was furnished, showing an arrangement with a steam tug company by which a vessel was ready at all times, day and night, with steam up for towing out a lifeboat and rendering any service that might be required.

In May, 1851, under authority of the act of March 3, 1851, the Secretary of the Treasury appointed a board of officers of high rank to investigate and make a detailed report as to the condition and needs of the Light-House Establishment, to guide legislation in extending and improving it. In the report of this board, under date of January 30, 1852, the matter of relief for the shipwrecked was discussed. It was advised that surfboats and lifeboats be furnished to certain light-house stations, and the means of readily providing crews for them in time of need be supplied. The system at the port of Liverpool was described, showing that the lifeboats were kept on carriages in the boat houses near the shore and horses provided for their transportation to the most advantageous spot for launching; that these boats were manned by picked boatmen of Liverpool and picked fishermen along the coast, all of whom were kept on constant and permanent pay and regularly mustered and exercised.

The Liverpool arrangements were declared well worthy of imitation for many parts of our dangerous coast, especially during the winter months, and the board strongly urged the necessity for the employment of more efficient means than then existed at the points where lifeboats had been authorized by law to be placed.

In accordance with the recommendation of the report, the act of August 31, 1852, placed the light-house system in charge of the Light-House Board, under the superintendence of the Secretary of the Treasury, the board being organized October 8, 1852, and relieving from such duties the Fifth Auditor, Stephen Pleasonton, who, it is stated, had "had the sole charge of the light-house direction in the United States for nearly forty years."

On February 25, 1847, during the second session of the Twenty-eighth Congress, while the light-house bill was under consideration, Mr. Robert McClelland, of Michigan, chairman of the Committee on Commerce, prompted, perhaps, by the suggestions made in the report of Lieutenants Jenkins and Bache the year before, moved an amendment to come in at the end of the items for New York, viz: "For furnishing the light-houses on the Atlantic coast with means of rendering assistance to shipwrecked mariners, \$5,000; the same to be under the control and direction of the Secretary of the Treasury." The amendment was enacted into law March 3, 1847 (9 Stat., p. 176), in the exact terms in which it was introduced, and was the first appropriation made for rendering assistance to the shipwrecked from the shore.

There was an extended debate on the bill on February 25, from the



report of which, in the Congressional Globe, the following excerpt is made:

Mr. McClelland said that though he was not himself the draftsman of the bill, yet he had examined every item in it with care, and every item had been deliberately discussed in the committee. The bill had been drawn by a gentleman from Maryland (Mr. Giles), of large information on commercial matters. Every light-house in it had the express approval and recommendation of the Department.

* * * The safety of the whole commerce of the country depended on the erecting and keeping up of light-houses at every necessary point along our marine seaboard, as well as our frontier shores upon the lakes. There had been no light-house bill passed by Congress since 1838. Was it not time that another should be passed to meet the growing necessities of the country and its rapidly spreading commerce? There was one item which had been introduced into this bill on Mr. McC.'s own motion; its cost was \$5,000, and it would save annually from 50 to 100 lives. Was this, in the gentleman's view, a matter of no importance?

In addition to its advocacy by Mr. McClelland and Mr. Giles, its passage was also strongly urged by Mr. John Wentworth, of Illinois, Mr. Robert C. Winthrop, of Massachusetts, Mr. Hannibal Hamlin, of Maine, and others. (Congressional Globe and Appendix, second session, Twenty-ninth Congress, p. 510 of Globe and 420, Appendix.) The remarks by Mr. McClelland in support of his amendment was the first plea made in Congress for an appropriation to aid in saving lives from shipwreck.

In a report from the Superintendent of the Light-House Establishment, dated December 15, 1847, showing what had been done under the light-house act of March 3, 1847, it was stated that the \$5,000 appropriation had not been used. The item remaining unexpended was carried forward as an unexpended balance available for the next fiscal year. The second appropriation for life-saving purposes was that of \$10,000 in the act of August 14, 1848, referred to in the memorial as having sprung from Mr. Newell's amendment.

Under date of September 25, 1848, a committee of the Massachusetts Humane Society wrote to the Secretary of the Treasury, Robert J. Walker, asking if any part of either of these appropriations could be placed at the disposal of the society "for the construction and maintenance of lifeboats and rockets to throw lines to or from stranded ships." It was stated that the society was instituted in 1786 and incorporated in 1791; that it was maintaining "sixteen or more lifeboats on the coast at the most exposed places, also a number of houses on exposed beaches," and that it also furnished medals and other suitable testimonials to those who distinguished themselves in saving life.

This proposition was favorably considered. On October 11, 1848, the committee were informed that the appropriation of \$10,000 was designed for use between New York and Little Egg Harbor, and that the Department proposed, with the cooperation of the underwriters of New York, to use it accordingly. The \$5,000 appropriation, however, they were advised, could be used by the society "for furnishing the light-houses or other exposed places where vessels are liable to be driven on shore, with boats or other suitable means of assistance."

The funds were placed in the hands of the collector of customs at Boston, to be drawn upon by the committee for the payment of such bills as they should vouch for. This action on the part of the Secretary was acknowledged by Mr. R. B. Forbes, one of the members of the committee, who inclosed in his letter a printed communication on the subject of saving life from wrecked vessels, "written," he stated, "at the instigation of Mr. Jones, the president of the board of underwriters of New York," which body had been invited by the Secretary of the Treasury to cooperate with the Department in carrying into

effect the law appropriating the \$10,000 for expenditure upon the coast of New Jersey. This printed communication, which discussed at length the character of the boats and apparatus which were useful in saving life, and detailed the appliances and methods employed by the society, although written primarily for the information of the board of underwriters, indicated to the Secretary the nature of the expenditure to be made from the money. The committee proceeded without delay to the execution of its purpose, and by the 1st of May had rendered its accounts. The expenditure included boathouses, life and surf boats, line rockets, etc.

Soon after the Massachusetts Humane Society had opened the question, Secretary Walker, on October 2, 1848, addressed the New York Board of Underwriters, stating the facts as to the appropriation of \$10,000 for the New Jersey coast, and asking if they would undertake the arrangements necessary to give effect to the law and agreeing to detach an officer to carry into effect the measures they might recommend. The proposition was accepted, and Capt. Douglas Ottinger, of the Revenue-Marine Service, was, on October 18, 1848, designated as the officer to act for the Department.

In the effort to make an intelligent application of this amount it appears that the Board of Underwriters soon sought and availed themselves of the advice and assistance of the Massachusetts Humane Society, as will hereafter be seen. With this appropriation eight boathouses, 28 by 16 feet in dimensions, were erected and supplied with appliances. The appropriation of \$10,000 made by act of March 3, 1849, which Mr. Newell was instrumental in obtaining, was in like manner expended under the direction of the Philadelphia Board of Underwriters upon the New Jersey coast, between Little Egg Harbor and Cape May, Lieut. John McGowan being the Revenue-Marine officer detailed to their assistance. The other appropriation of \$10,000 made by the same act, without restriction as to locality, was expended in erecting eight boathouses on the ocean and sound sides of the Long Island coast, under the direction of the Life-Saving Benevolent Association of New York, as has been stated.

This constitutes the record of the inception of life-saving work upon the shores of the United States by the Government, so far as I have been able to trace it.

From this it is clear that Mr. Newell was not the first to advocate in Congress the appropriation of funds for the preservation of life and property from shipwreck, nor the first to secure such an appropriation, but that Mr. McClelland, of Michigan, was; that neither he nor Mr. McClelland was the first to suggest to the Government the idea that it should provide means for rescuing the shipwrecked, but that the Messrs. Blunt, of New York City, and Lieuts. W. D. Porter, Thornton A. Jenkins, and Richard Bache, while connected with the Light-House Establishment, preceded them, and that the first application of Government money in the establishment of boathouses furnished with boats and other life-saving appliances was not upon the coast of New Jersey, but upon the coast of Massachusetts.

Probably the most that can be said for Mr. Newell in relation to this aspect of the case was contained in a brief sketch of the origin and development of the Life-Saving Service published in the annual report of the Service for the year 1876. Wishing to give Mr. Newell all due credit, I wrote:

As has been observed, the Government first gave its attention to the method of aiding stranded vessels by the establishment of stations along the coast, furnish-

with the means of effecting communication between such vessels and the shore, in 1848, and to the Hon. William A. Newell, of New Jersey, then a member of the House of Representatives, belongs the honor of first advocating the merits of this plan in a speech, in which he described the uses of the surfboat, mortar, line rockets, etc.; portrayed vividly the horrible scenes of shipwreck upon the calamitous shores of his State, etc.

This paragraph read alone, without reference to the context, might convey an erroneous impression, and perhaps I should have taken greater care to express myself clearly. Preceding this paragraph, on the same page, I had spoken of the appropriation obtained by Mr. McClelland, of its allotment to the Massachusetts Humane Society, and of its expenditure upon the Massachusetts coast in the construction and equipment of station houses.

It could not, therefore, have been the intention of the paragraph to imply that Mr. Newell was entitled to the credit of first bringing to the attention of the Government the idea of its aiding the shipwrecked, or of obtaining the first Government appropriation for that purpose. A careful examination of the paragraph will show that the assertion is that the Government then first gave its attention to the *method* employed in rendering such aid and that I attributed to Mr. Newell the honor of first advocating the *merits of that method* or plan, which he described in his speech. This method or plan is precisely the same as was then and had been for many years in use upon the coast of Massachusetts, and was not at all original with Mr. Newell.

The essential features of the plan which Mr. Newell described at length in his speech have already been briefly set out in a former part of this report and are still more comprehensively embraced in the item of appropriation, the passage of which he was advocating. They were simply the stationing, at dangerous points on the coast, of "surfboats, rockets, carronades, and other necessary apparatus" to be used in the rescue of the shipwrecked from stranded vessels. In his speech he also suggested the propriety of awarding medals for bravery. It has been seen that the committee of the Massachusetts Humane Society in their letter of September 25, 1848, to the Secretary of the Treasury, in response to which they obtained the allotment above referred to, asked that the money be placed at their disposal "for the construction and maintenance of lifeboats and rockets to throw lines to or from stranded ships," and stated that the society which was instituted in 1786 and incorporated in 1791 maintained "sixteen or more lifeboats distributed on the coast at the most exposed locations; also a number of houses on exposed beaches where vessels are liable to come on shore," and that they awarded "medals and other suitable testimonials to those who were so fortunate as to distinguish themselves in saving life." (Light-House Letters, Book P, 1848, p. 193.)

The annual report of the Humane Society of Massachusetts for 1885, sketching the history of the society, states (p. 8) that in 1807 the society established its first station fitted with a lifeboat, and that in 1845 it had on the Massachusetts coast eighteen "similar stations for boats and mortars for throwing life lines to stranded vessels, as well as buoys of refuge." In another place (p. 14) it says:

It is gratifying to think that the Humane Society of Massachusetts is, nevertheless, one of the oldest in the world; that it originated its coast service thirty-seven years before England did, while the French service is much later. Not the least glory is that it may be considered the parent of the United States Life-Saving Service.

The report of Captain Ottinger dated May 21, 1849, on file in this office, giving an account of the performance of his duties under his assignment to assist the New York Board of Underwriters in carrying

into effect the provisions made by Congress, enumerates the articles of apparatus provided, and states that the rockets for throwing lines were furnished and imported by R. B. Forbes, who will be remembered as one of the committee of the Massachusetts Humane Society. He was chairman of the standing committee, or the chief executive officer, of the Society and managed its technical affairs for many years, and was at that time, and perhaps until his death, the best-informed person in the United States in life-saving matters. Captain Ottinger also states that the inflated floats which were attached to the life cars (a device which was developed during the progress of the work) were "adopted by R. B. Forbes, esq., to give the boats constructed by him for the Massachusetts Humane Society the essentials of lifeboats." The application of these floats constituted the principal difference between the lifeboats of the Humane Society and the surfboats referred to by Mr. Newell. Captain Ottinger further states that mortars were substituted for carronades, the latter being objectionable "on account of the greater velocity of the shot at the moment its action was felt upon the line." "Rockets," he stated, "have been generally preferred on account of not breaking the lines, as their motion is an accelerated one."

The method of establishing communication with stranded vessels by a shot and line is a century old. It seems to have been first proposed by Lieutenant Bell, of the Royal Artillery. Experiments with this method in 1791 were successful, and in 1811 an address was moved in the British House of Commons by Mr. Wilberforce, praying to have such an apparatus stationed on different parts of the coast.

The following is an extract from the *Encyclopedia Britannica*, eighth edition, Volume XIII, pages 440-445:

It had occurred to Lieutenant Bell, in 1791, that a rope might be thrown from a ship which had struck, by means of a mortar carrying a heavy shot, and upon the principle of the gun harpoon; and he showed the practicability of the suggestion by an actual experiment, in which a deep-sea line was carried to a distance of about 400 yards. (*Trans. Soc. Arts*, XXV, p. 136.) He recommended that every ship should be provided with a mortar capable of carrying such a shot, and observed that it might be placed on a coil of rope to be fired, instead of a carriage. The line was to be coiled on handspikes, which were to be drawn out before the mortar was fired.

In 1792 he received a premium of 50 guineas from the Society of Arts (*Transactions*, X, p. 204); and he obtained his promotion in the ordnance as an acknowledgment of his merits. The shot was to weigh about 60 pounds or more, and the mortar 5 or 6 cwt. The experiments of the French artillery at Lafere were subsequent to those of Mr. Bell, though they have sometimes been quoted as the first of the kind. * * *

The means to be employed by persons on shore, in cases of shipwreck, depend either on projecting a line over the ship or on the use of a lifeboat. Mr. Bell had cursorily observed that a line might be carried over a ship from the shore by means of his mortar; but for the actual execution of this proposal, in a variety of cases, we are indebted to the meritorious exertions of Capt. G. W. Manby, whose apparatus, according to the report of a committee of the House of Commons, dated in March 10, 1810, appears "to be admirably adapted to its purpose, and to have been attended with the fullest success in almost every instance." In consequence of this report Captain Manby was thought worthy of a parliamentary reward, and he afterwards published a description of his inventions under the title of *An Essay on the Preservation of Shipwrecked Persons*, 8vo., London, 1812. He had previously received a gold medal from the Society of Arts in 1808. (*Transactions*, XXVI, p. 209.)

Captain Manby in 1826 issued another publication entitled *A Practical Illustrative Essay on the Prevention of Shipwreck and the Preservation of Shipwrecked Mariners*, a copy of which was presented to me by R. B. Forbes and is now in the library of the service. This essay details the method of establishing communication with a wrecked vessel by a line fired from a mortar (carronades being also mentioned), and is illustrated with cuts of the mortar and its accessories, the

method of faking the lines, and other engravings descriptive of the various parts of the apparatus and the manner of using it.

It is stated in the text that this method had at that time saved on the shores of England "49 Dutch, 17 Danes, 13 Swedes, and 228 British subjects."

With reference to the award of medals, the first formal action taken in Congress in regard to it was the introduction of a resolution on January 15, 1849, in the second session of the Thirtieth Congress, by Hon. Asa W. H. Clapp, of Maine, "instructing the Committee on Commerce to inquire into the expediency of authorizing the President of the United States to grant medals to individuals who saved the lives of persons or vessels in cases of disaster on the ocean, lakes, bays, sounds, harbors, and rivers, whether those who performed or were benefited by the act were Americans or foreigners."

In his speech of August 3, 1848, Mr. Newell spoke of the lifeboat stations of England and declared her to be in advance of this country in providing means for the protection of life. This implies some knowledge on his part of what she had accomplished in that direction. It seems hardly possible that he should not have known of the methods employed both in that country and this. At any rate the foregoing evidence establishes the fact beyond question that the means described in his speech were not original with him, but were at that time actually in use on the coast of Massachusetts and in Great Britain. We have also seen that the idea of bestowing medals as rewards for bravery in rescuing the shipwrecked was an old one and that he did not introduce it into this country.

While the preamble and resolutions adopted by the legislature of New Jersey and indorsed by the legislature of Washington, and which the Congress of the United States is asked by the memorial under consideration also to indorse, designates Mr. Newell as the originator of the "system of Life-Saving Service of the United States," it can not be assumed that anything more was intended than to credit him with originating the system first put in operation on the coast of the United States, yet the phraseology is very liable to leave the impression upon the casual reader that he originated the system now in operation, which probably neither he nor anyone else at that time had even dreamed of.

The system with which he was connected is, as has been said, concisely yet fully described in the appropriation in the light-house act of August 14, 1848, which specified three articles—surfboats, carronades, and rockets—together with "other necessary apparatus," to be placed at selected points upon the New Jersey coast. That was all. The "other necessary apparatus" was whatever those who had charge of the expenditure of the money should see fit to include. What was actually placed at each of those points selected, as shown by Captain Ottinger's final report, on file in this office, was a surfboat with air chambers and cork fenders, a mortar (instead of a carronade), some rockets (number not stated), some blue lights, and the accessories essential to the use of the above-named articles, such as oars, bailing buckets, hawsers, powder, etc., together with a heating stove and some firewood, lanterns, etc., all of which were contained in a rough boathouse 28 by 16 feet in dimensions. There was also a life car, which was devised by Captain Ottinger or Joseph Francis, or the two together, with which Mr. Newell had nothing to do. This constituted the entire system as it was established.

Neither the act of appropriation itself nor the speech of Mr. Newell

advocating its passage contemplated any provision for the safety and proper care of the buildings and their contents, although it may perhaps be inferred from the tenor of his remarks that the coast population was to be depended upon for that. There was no organization of any sort; no accounting to the Treasury for the property, or for anything that might happen or be done; no responsibility from anybody to anybody. There the buildings stood, many of them upon isolated portions of the coast, far distant from any habitations, exposed to the depredations of the covetous, the mischievous, and the malicious. As a matter of fact, upon the completion of the work, Captain Ottinger, as any careful man would have done under the circumstances, left the key of each boathouse with someone, probably as suitable a man as he could find who would accept it, and left also with him a printed card of instructions as to the manner of using the articles.

The consequence was, that although for a while they received the benefit of some degree of supervision and on occasion supplied the hardy beachmen with the means for good work in rescue, they soon were allowed to suffer from neglect, natural decay, and petty thefts. Then came disasters, with deplorable loss of life, until the condition of things attracted the attention of the public and of Congress. In April of 1854 the Committee on Commerce, through its chairman, Hon. Hannibal Hamlin, called upon the Treasury Department for information in regard to the matter and invited suggestions. The Secretary of the Treasury replied that, upon establishing the stations and furnishing them with apparatus, all care over them on the part of the Government ceased. He recommended that the stations be placed in the care of responsible agents of the Government, and suggested that authority be given for the appointment of a superintendent for each of the New Jersey and Long Island coasts and a keeper for each station. This appears to have been the first step looking to anything like improvement, and was carried into effect by the act of December 14, 1854.

Some improvement followed, but it was only temporary and partial. The new appointees put the stations and equipments in serviceable condition, and for a period the benefit of the step that had been taken was manifest in a marked reduction in the fatality attendant upon disasters within their purview. After a while, however, owing to the lack of any regulations for the government of the officers, and the failure to hold them to a proper accountability either as to the care of the property intrusted to their charge or as to the discharge of their duties, their administration became lax and there was a relapse into very much the same state that had previously existed. This defective and unorganized condition continued, interrupted by spasmodic temporary improvement succeeding some distressing calamity, until 1871, when the organization of the service was undertaken by the Department, with the aid of Congress.

The situation at that time is shown by a report of Capt. John Faunce, of the Revenue-Marine Service (dated August 9, 1871), who had been detailed to examine into it. He stated that he found most of the stations too remote from each other; that some of the keepers were too old for active service, others lived too far from their stations, and few of them were really competent for their positions; that politics had had more influence in their appointment than qualification for the duties required of them; that the houses were much dilapidated, many being so far gone as to be worthless, and the remainder were in need of extensive repairs and enlargement; that, with but few exceptions, they were in a filthy condition, and gave every evidence of neglect and

misuse; that the apparatus was rusty for want of care, and some of it ruined by the depredations of vermin and malicious persons; that many of the most necessary articles were wanting, and at no station was the outfit complete; that at some of the stations such indispensable articles as powder, rockets, shot lines, shovels, etc., were not to be found, and that at others not a portable article was left. This deplorable condition of decay and inefficiency on the Long Island and New Jersey shores marked the end and climax not only of what Mr. Newell calls his system, but of that reenforced by such improvements as were accomplished by the act of December 14, 1854.

To-day there are 265 life-saving stations, located at specially selected points of danger on the Atlantic, Pacific, and Gulf coasts and the coasts of the Great Lakes, equipped with the best of every known appliance for rescuing the shipwrecked and furnished with ample accommodations for their care and for the comfort of carefully selected and disciplined crews of surfmen, who reside in them during the inclement portion of the year under the government of adequate laws and regulations, administered by a competent corps of officers responsible to a central authority. Each station is in charge of a keeper, living in the station, who is the captain and leader of his crew; who takes the steering oar in all perilous excursions with the lifeboat, and shares their dangers and is answerable for the management and good order of the station affairs and the proper care of the station property.

The coast is divided into 12 districts, each of which is under the immediate supervision of a district superintendent, and is subject to the periodical inspection of an officer of the Revenue-Cutter Service, who reports to the chief inspector, detailed from that service, and the entire service is under the management and control of a General Superintendent, whose office is in Washington. The keepers must be promoted from the ranks of the surfmen and the district superintendents from the ranks of the keepers, and everyone in the service must have passed a rigid examination before admission, except the General Superintendent, whom the law requires to be a suitable person, familiar with the various means employed for saving life and property from shipwrecked vessels, and whose duties the statutes specifically define.

The district superintendents, inspectors, keepers, and crews are required by law to be selected "solely with reference to their fitness and without reference to their political or party affiliations," thus entirely excluding the influence of partisan politics, which, as has been seen, formerly played a sinister part on the Long Island and New Jersey coasts. On each day the crews are drilled in some of their duties, one day with the lifeboat or surfboat, another with the beach apparatus, another with signals, another with the method of resuscitating the apparently drowned, etc. From the towers or lookouts of the stations, which are constructed with special reference to their purpose under the supervision of two superintendents of construction, a strict watch of everything occurring seaward is maintained by day, and a patrol system is established by night. For the latter purpose the night is divided into four watches.

Where the stations are adjacent, two patrolmen start out from a station at the beginning of their watch and proceed, constantly on the lookout for distressed vessels, in opposite directions until they meet the patrolmen from the adjacent stations, with whom they exchange checks (thus insuring fidelity) and return to their respective stations, when two others start out, and so on through the night. If a wreck or a vessel in distress is descried or if a vessel is seen running into danger,

the patrolman fires a brilliant red Coston signal which he carries, which assures the shipwrecked that they are seen and that assistance is near, or warns of its danger the vessel too closely approaching the shore or the shoal. A record of all this and of everything of interest that transpires at the station is kept in the station journal or log, a transcript of which is forwarded to the Washington office weekly. At isolated stations, where there are no adjacent stations, patrol clocks, which show the hour and minute when the extreme limit of the patrol is reached, are used to insure faithfulness.

On long stretches of beaches like Cape Cod, the Long Island, New Jersey, Delaware, Maryland, Virginia, and North Carolina coasts, telephone lines run through all the stations, by means of which reinforcements from neighboring stations can be summoned and concentrated at needed points, and through their connection with the general telegraph system of the country the Department, the maritime exchanges, and parties interested, can be notified and the assistance of revenue cutters, wrecking tugs, or any other necessary aid speedily obtained. Stations not adjacent to others are generally connected with the nearest ports and cities, so that they are nearly all within telegraphic reach. The extent of the telephone system of the service is now more than 700 miles. Incidentally this system, as is obvious, might be extremely useful in time of war, especially as all the life-saving crews are expert in the use of the International Code of Signals.

Horses and draft animals, to convey upon carriages specially designed for the purpose the surfboats and apparatus to the scene of shipwreck, are either kept at the stations or arrangement is made with the neighborhood residents for their use when required.

When people are rescued from shipwreck, the weak, the sick, and the disabled (and there are many such), are taken to the nearest station, which then assumes the character of a hospital, and are treated with palliative remedies from the medicine chest, supplied, under the direction of the Surgeon-General of the Marine-Hospital Service, by whose medical officers the keepers have been instructed in their use, while those who are well, but hungry, cold, and wet, are fed, warmed, and put in dry clothing, and all are lodged and cared for until they are able to get away.

Next to saving the lives of the imperiled comes the duty of saving property, and the amount saved annually by the crews largely exceeds the cost of the maintenance of the service. The law authorizes and requires the keepers to take charge of and protect all such property until claimed by parties legally entitled to receive it, or until otherwise directed by the Department as to its disposition. The keepers also have the powers of inspectors of customs, and look out for the interest of the Government in all dutiable wrecked property. These powers also are protective against smuggling.

Upon the termination of their duties at a wreck, the keepers are required to make out and forward to the Department a wreck report, containing answers to sixty-six pertinent questions, and such particulars as can not be thus stated must be annexed to the form, so that every fact material or of interest is set forth. If life is lost, the law requires a thorough investigation to be instituted, with a view of ascertaining the circumstances and whether the fatality was due to any neglect or misconduct on the part of the service. Any alleged misconduct or incompetency at other times is likewise subject to investigation, if deemed necessary. The results of the investigation into the circumstances of loss of life are fully set out in the annual reports of the serv-

ice which the General Superintendent is required to make. These accounts are eagerly read by the friends of the lost and by those interested in the vessels and cargoes. They are also studied with interest by the station crews, to whom they are often very instructive and useful, as they afford examples of procedure in emergencies to be imitated if successful or avoided if erroneous.

In view of the hazard to life and health involved, both in their desperate contentions with the sea and their exposure to the fury of hurricanes and storms and the bitter blasts of winter in their solitary patrol of the beaches, their confined and monotonous life at the stations apart from their families (though compelled to assist in the support of two households), deprived of social comforts and privileges, their unrelieved devotion to duty, their trained and disciplined skill, their valor, and their meager pay compared with the character of their services, the members of the crews when disabled in the line of duty are retained upon the rolls during the continuance of their disability, not to exceed one year—though in certain cases the period may be extended upon recommendation through a portion or the whole of another year—and in case of their death from perilous service or disease contracted in the line of duty their widows and children under sixteen years of age are entitled to be paid during a period of two years the same amount, payable quarterly, that the husband or father would have received.

Gold and silver medals are awarded in specially distinguished instances of heroism, but these rewards are not confined to the professional life savers; they may also be given to others who have displayed conspicuous bravery in rescuing the shipwrecked.

Much attention is given to the improvement of the boats and apparatus of the service, and every effort is made to obtain everything of the kind that is useful and best, while due effort is made to avoid the imposition upon the service of what is inferior, chimerical, or useless. With these objects in view, a board on life-saving appliances is established consisting of experts in such matters, which meets annually, and to which all life-saving plans, devices, and inventions appearing to have merit are referred for examination and test.

An important feature is the collection and tabulation of statistics of marine disasters, which is so extremely valuable to commerce, and is so universally provided for in other maritime countries that it is surprising that they were not required at an early period of our commercial history. They are largely used in the fixing of insurance rates and in determining the location of light-houses, life-saving stations, beacons, harbors of refuge, and other aids to navigation, and for other purposes.

At the end of each fiscal year the General Superintendent makes an annual report in which the tables of these statistics are published, arranged for convenience of reference with regard to causes and localities of disasters, amounts of losses, amounts of insurance, nature of cargoes, age of vessels, loss of life, etc., as likewise another tabulation of statistics confined to disasters within the scope of the service. The report also shows the nature and extent of the operations of the service, briefly stating exactly the services of the crews on each occasion of disaster, setting out the results of investigations in instances of loss of life, as previously stated, showing the cost of the maintenance of the service and the nature of the expenditures, and containing the report of the board on life-saving appliances upon the plans and devices submitted to it, etc.

These are the salient features of the system, the origination and authorship of which, to the understanding at least of the unobservant

beyond precedent—being the 3d day of January, 1848, to offer the following resolution:

6. "Resolved, That the Committee on Commerce be instructed to inquire whether any plan can be devised whereby the dangerous navigation along the coast of New Jersey, between Sandy Hook and Little Egg Harbor, may be furnished with additional safeguards to life and property, and that they report by bill or otherwise."

7. The committee, Washington Hunt, of New York, chairman; Joseph H. Grinnell William R. King, of Massachusetts, and others did not make any report whatever on my proposition, notwithstanding my frequent appearance before them, some members evidently considering the project chimerical, others interposing constitutional objections, others that no appropriation could be made except for a settled purpose, and not for experiments—objections all futile, but effective in preventing a favorable report.

8. Ignoring the committee, I made personal explanation and appeal to President Polk, Vice-President Dallas, Speaker Winthrop, and every Senator and Representative whom I could reach, intending to carry my measure by attachment to some bill. I recall with grateful emotions, after the lapse of fifty years, the kind consideration extended to me by the distinguished men of that period, among whom were Messrs. Clay, Calhoun, Webster, Cass, Jeff. Davis, Benton, Douglas, J. Q. Adams, Giddings, Wilmot, Cameron, Thaddeus Stevens, Dayton, and Miller. It was a labor of eight months, and even all that effort did not avail, for the Committee on Commerce did not approve, nor could I induce the chairman of any of the House committees vested with power to recommend appropriations to allow me to place an amendment upon their lists, and I gave up all hope of success; nor did the House primarily approve at all, for my successful effort was made only when the *Senate light-house bill* came to the House for consideration, when I presented my time-worn amendment in Committee of the Whole House, when it passed without notice, dissent, or vote. No objection being made, the chairman declared it adopted in the hurry and flurry of impending adjournment. I looked assiduously after the fate of my bantling in the Senate, where it went along with other attachments without debate or dispute.

9. The signature of Mr. Polk completed legislation which launched my plan "for the better preservation of life and property from shipwreck," and which I denominated the "American system," but which the General Government, in carrying out my ideas, has chosen to designate the "United States Life-Saving Service," honoring its author by conferring its own title upon the work of a representative of the people.

10. The following is the text of the amendment passed on the 9th day of August, 1848:

Congressional Globe, Thirtieth Congress, Volume XIX, page 1089, will be found: August 9th.—*The light-house bill from the Senate* being under consideration before the House, Mr. Newell of New Jersey offered the following amendment:

"For providing surfboats, lifeboats, rockets, carronades, and other necessary apparatus for the better preservation of life and property from shipwreck along the coast of New Jersey between Sandy Hook and Little Egg Harbor, ten thousand dollars; to be expended under the supervision of such officer as may be designated by the Secretary of the Treasury for that purpose."

11. Mr. Newell said he would not consume the time of the committee, after the patient attention given to his remarks on Thursday last, any further than to say that the observations he had the honor then to submit were made in anticipation and advocacy of the amendment which he had just proposed, which he hoped would be sustained by every member on the floor who felt any degree interested in the great cause of humanity.

The question being taken, the amendment was unanimously adopted.

12. And thus, after much tribulation, was the first appropriation secured; but no such effort has been necessary for the millions since secured for that purpose, for truly the approving smile of Providence was set upon the first endeavor of the system, when three hundred and one passengers and crew, the entire list, were rescued from the wreck of the Scottish bark Ayreshire on the night of the 25th of December, 1849, on Absocom Beach, on the Atlantic coast of New Jersey, in the midst of a blinding snowstorm. The vessel foundered three miles from the shore and came thumping and thundering along until within reach of the carronade power, which propelled the first cannon ball ever fired with friendly intent at the hull of a ship, carrying the first life-line ever thus projected, and saving human lives and property by an agency hitherto unknown. This perfect success was achieved before the life car and breeches buoy were in use, the wreckers having only at command the Francis Metcalf lifeboat and Holmes's surfboat for conveyance of passengers from ship to shore.

13. On the third day of August, 1848, I made an elaborate speech upon this subject, to be found in the Congressional Globe and Appendix of that date, from which I make the following extracts:

"The coast of New Jersey is more famous for shipwrecks attended with loss of

life than any other portion of our country, not excepting the Florida reefs, owing to a peculiar condition which I shall presently explain.

"From the 19th of June, 1839, to July 31, 1848, a period of but little more than nine years, there is known to have been wrecked upon that and the adjoining shore of Long Island eighty-eight brigs, thirty barques, one hundred and forty schooners, and twelve sloops, making an aggregate of three hundred and forty-eight vessels. Of this number there were cast away on the New Jersey shore between the points already designated—Sandy Hook and Little Egg Harbor—twenty-five sloops, forty-eight brigs, seventy-five schooners, eight barques, and two pilot boats, making one hundred and fifty-eight vessels. Of the whole amount one hundred and twenty-two occurred since the 25th of February, 1840, thus showing the wrecks to be greatly increased over former years." * * *

14. The New Jersey shore, as may be seen by running the eye upon the map, lies in a direction by the compass northeast and southwest, or nearly with these points, and vessels approaching our coast for the harbor of New York are often carried towards these shores by the strong northeasterly winds which prevail in winter and which are frequently accompanied with thick weather, which is the especial dread of the mariner.

15. Now, the condition which makes the New Jersey coast especially dangerous is this, *that for the greater part of its whole extent there lies a bar nearly parallel with the beach, and at a distance from it from three to eight hundred yards. Upon this bar there is not more than two feet of water, so that a vessel driven by stress of weather must inevitably be stranded long before she gets near enough to the beach to enable those on board to take any measures for the preservation of life. Not even an ordinary ship's long boat can float over this bar.*

16. In most cases of shipwreck there are some fortunate escapes and the chance for life is always increased as the distance from *terra firma* is lessened. But here the mariner sees land before him with a perilous space between the shore and the bar beneath him, and without assistance from that shore he can never reach it, but must perish in the very sight of that land which, during his weary voyage, he has longed for by day and dreamed of by night. This assistance the small appropriation asked for is designed to render. Although a ship's boat can not cross the bar, a surfboat will do this, and will also live in a sea and come to land when the keel boat would be swamped. These surfboats, then, it is proposed to provide at suitable stations along the shore, and where the approach to the coast is most dangerous. *In addition to this it is proposed to furnish at each station a carronade of sufficient calibre to throw a ball with a rope attached over the vessel in distress, so that those on board may bend a hawser to this rope and then effect a communication with the land.* Finally, there shall be deposited a certain number of rockets, so that in a dark night a signal from the shore may be made to apprise those on board the distressed vessel in what direction they may look for aid. *With these few simple appliances it is believed that the hazard to life will be greatly diminished.*

17. I am about to lay down a proposition which, if not self-evident, is at least reasonable, and therefore shall I dare say it, constitutional. This is my proposition: *It is the bounden duty of the Government especially to protect the lives of such of its citizens as are engaged in those perilous pursuits from which are immediately derived the revenues of the country.* This proposition, if not already established, would seem to have been tacitly received and acted upon in the erection of light-houses and breakwaters and in anchoring of buoys to mark the channels of our harbors.

18. But I desire to see it not negatively, but positively recognized. As I have already said, the light-house is only a mockery when it conveys a warning that comes too late and marks a danger that can not be averted. But give us some of those rockets, of which we had such a fine display on the memorable anniversary which has just passed, a few surfboats, a small quantity of rope, a few carronades, which can never be put to better use—give us these means and my constituents will bless you, the mariner and the merchant and the passenger will bless you, and *He who orders all earthly events will smile upon the efforts which under your auspices are hereafter thus made in the sacred cause of humanity.*

19. At the opening of the second session of the Thirtieth Congress I offered an amendment providing for the extension of my system from Little Egg Harbor to Cape May, thus including all the shore line of New Jersey and also the Atlantic coast of Long Island; also providing for buoys at Barnegat Inlet and the mouth of Toms River, New Jersey, and to repair and reopen the light-house at Tuckers Beach; also for an additional appropriation to be applied between Sandy Hook and Little Egg Harbor. All of which were unanimously adopted, in the aggregate, as nearly as I can remember now, about \$40,000.

20. Congressional Globe, second session Thirtieth Congress, Volume XX, page 693, March 3, 1849, my second amendment is recorded: "For providing lifeboats, life cars, carronades, lines, rockets, and other necessary apparatus for the better preservation of life and property from shipwreck, from Little Egg Harbor to Cape May, ten

thousand dollars, to be expended under such officer of the Revenue-Marine Service as may be designated by the Secretary of the Navy for that purpose. Tellers—Newell and McClernand. Ayes—90. And the question having been taken, the vote stood: Ayes—90; noes, not counted. So the amendment was agreed to."

21. I quote from my speech: "Among the cargoes lost within the bounds of my resolutions, according to the official report of the Secretary of the Treasury, there is one alone of \$750,000. The total number of wrecks included in this statement is five hundred and eighty-five; the number of men engaged in working the vessels is nineteen hundred and sixteen; passengers, nineteen hundred and sixty-nine; of lives lost, four hundred and seventy seven; the value of the vessels is estimated at \$2,091,370 and of cargoes \$250,771, making in all the sum of \$4,538,176. The amount of insurance paid was \$1,570,318, and on the cargoes \$1,291,837, making the total of property covered \$2,801,319, thus showing the actual loss to be \$1,791,857, and that statement embraces the period of but one year."

22. February 17th, 1849, I said: "The appropriation made at the last session of Congress for the shore of the district which I have the honor to represent is now in process of application under the supervision of a gentleman who certainly understands the nature of this task and enters upon it with the ardor and spirit which characterizes his profession."

23. "With the permission of the House I will send to the Clerk's desk a letter addressed to myself, dated October, 1848, which I have received from the gentleman, Captain Douglas Ottinger, of the Revenue Marine Service." I give extracts from this letter.

* * * * *

"We have erected eight stations within the limit of the law for the preservation of life and property from shipwreck on the coast of New Jersey, and design to have at each of them a substantial frame house to be furnished with galvanized surfboats, with ten separate air chambers, one hundred and sixty fathoms of hawser, three hundred and sixty fathoms of hauling rope, six hundred yards of rocket line, rockets, etc. Stoves and fuel will be placed in the buildings, which will be sufficiently large to shelter persons and goods. In addition to the surfboats, I propose to have a life car in each station, which is designed to carry a line to the stranded vessel where the wind and sea are too heavy for the best-constructed boat to live. *I have made some experiments in throwing a line from the shore to a vessel with a rocket, and threw it two hundred and fifty yards, with which we tested the practicability of sending a hawser from the beach to a boat or vessel. It is my intention, as soon as the weather will permit, to make some trials in throwing a line by means of a mortar and shot, and am of the opinion that, if successful, we shall place them at the several stations.*"

24. "In several consultations which I held with Captain Ottinger he did not manifest any confidence in the success of the ball and mortar, but I persisted in urging the experiment, with gratifying results."

25. "The coast of Long Island is sadly in need of surfboats and houses to save and shelter the shipwrecked. I am much indebted to one of your constituents, Major Henry Wardell, for valuable information on the subject of my present duties, and during my stay with him I had the satisfaction of hearing remarks from several intelligent persons throughout the neighborhood, who were gratified that the Government was about to place under their control more effective means to enable them to extend their usefulness in preserving life and property from shipwreck."

26. This letter, Mr. Speaker, furnishes information in detail of the plans to be pursued in carrying out the intention of Congress as expressed at the last session. It only remains to be seen if it shall be extended so as to take in the rest of the New Jersey and Long Island shores. In making this extension but one motive actuates me—that of advancing the claims of humanity, dear to us all. Under the appropriation asked for no new offices are to be created, no salary given; there are to be no contracts for favorites; party is nowhere brought into the question. The one sole end and object is the placing within the reach of the sentinel upon the shore the means of affording timely assistance to his distressed brother upon the ocean.

27. The only objections which can be properly urged are a want of power in the Constitution or want of money in the Treasury. As regards the first, the proposed expenditure has already received the sanction of Congress in the case of my own district. It is carrying out the same system under which light-houses, buoys, breakwaters, and other facilities to navigation have been provided for since the earliest organization of our Government; a system which is the dictate of sound governmental policy and *requires to be extended for like purposes to every part of our common country.* It may be said that while the subject is meritorious, the scheme embraced is purely philanthropical, and as such it should be left to the care of private associations, or that if New Jersey and New York are the points of frequent shipwreck with its attendant horrors, those States should provide the necessary means of relief.

28. The reply is that, although the coasting trade will receive all the benefit the proposed relief, it will chiefly protect that foreign commerce which is

exclusive care and concern of the nation, and from which we derive nearly the whole of our revenue. Assuredly it can not be maintained that any exclusive advantages will be enjoyed in the premises by either of these States. As for my own, she does not require pecuniary aid for herself. Her bonds are not to be found in any market at home or abroad, and whoever has read the last message of her chief magistrate will observe with pride that not only is New Jersey free from debt, but that it possesses a large surplus fund which, under wisest Republican policy, is set apart for the education of her children.

29. I regret that I have not at hand Congressional Record of the Thirty-first Congress, of which I was a member, that I might make official reference to my efforts during that period for the extension and improvement of the life-saving system, which were in the line of my previous and subsequent record.

I am, however, enabled to present the following transcript from Part II, Congressional Globe, Thirty-first Congress, Volume XXI, page 1442:

"Mr. Newell, of New Jersey, offered the following resolution:

30. "*Resolved*, That the Committee on Commerce be instructed to inquire into the expediency of making appropriations to remove obstructions from the mouths of the Shrewsbury and Manasquan rivers, on the Atlantic coast of New Jersey, and also into the expediency of making appropriations for the better preservation of life and property from shipwreck, similar to those now in use on the New Jersey and Long Island shores, to be located, one at Watch H. B. Point, near the dividing line between Connecticut and Rhode Island; one on the south side of Manasquan River, New Jersey; others between those already established on Long Island, and others between Cape May and Cape Hatteras, on the Atlantic coast; also to paint the houses already erected by order of Congress, and to provide certain articles for them which are now wanting, and that they report by bill or otherwise."

Thus was initiated an extension of the system now provided for all of our maritime and lake waters.

31. My interest as a public man had not been confined to the Atlantic shores. In my biennial message to the legislative assembly of Washington Territory in 1883 I remarked:

32. "Our commerce, world-wide and coastwise, now extensive and greatly to be increased, demands liberal appropriations from the General Government for all means and appliances which will tend to increase the area of navigation and to diminish its perils. Many of our rivers are obstructed by tree and log jams, the removal of which would extend their usefulness and value many fold.

33. "Additional light-houses, beacons, and buoys are required upon the Pacific coast and upon our inland seas, conspicuously at several points. A light-house is much needed at Peterson's Point, on Gray's Harbor. The commerce of that sea is largely increasing and is entitled to this recognition. Several smaller light-houses are required also at various places on Puget Sound and the San Juan Archipelago, where many lives are lost. The two life-saving stations are not located to the best advantage for the conveyance of the apparatus to wrecked vessels, as they are likely to be located. Two more at least are needed; one on the north side of Gray's Harbor Inlet and another on Loomis' Beach. All of them should be supplied with the most approved conveniences for saving life and property, and also be provided with full crews, to be paid as upon the Atlantic and lake shores.

34. "The Life-Saving Service was wholly devised and originated by my individual and unassisted efforts during my membership of the Thirtieth Congress as a Representative from New Jersey, at its first session, in all its details, as will be seen by reference to the Congressional Globe, August 3, 1848, etc."

35. No government, nor board of underwriters, nor vessel owners, nor rescued passengers, nor masters, nor mariners have ever recognized my agency in originating and establishing the institution, and therefore I am justified to place upon record, in this enduring manner, my sole agency in establishing a system which I denominate "The American system of saving life and property from shipwreck."

36. I have pleasure to note that, after many years, a light-house has been erected at Damon's Point, on the north side of Gray's Harbor Inlet, and that close by its side is a full-fledged and provisioned Life-Saving Station, employing a full crew, who—as do all wreckers on the Pacific coast—receive full pay during the entire year.

37. In 1861 President Lincoln, also a member of the Thirty-first Congress, who had taken a deep interest in my scheme—himself the patentee of an invention to aid wrecked vessels—appointed me superintendent of the service on the coast of New Jersey, an office which I held until I was again returned to Congress in 1864, at the Presidential election of that year. During the period of four years I made many journeys along the entire coast inspecting and making improvements, so that when I reached Washington as a Representative I was enabled to advance still further the usefulness of the system.

38. In the Thirty-ninth Congress, on the 14th of July, 1866, I made a protracted speech in advocacy of the service in support of propositions to increase its extent and usefulness, saying in part: "The necessity for increased appropriations for the purpose indicated is manifest to anyone familiar with the coast of New Jersey.

39. "I have frequently traversed its whole extent, and witnessed for myself the numerous wrecks, partly hidden in the sand, which loom up like the ribs of huge monsters, and, sir, there is scarcely a point on the entire coast from which at least one and often a half a dozen of these monuments of danger is not to be seen."

40. Referring to the history of the service, and designating the amount of appropriations heretofore made—in all, \$40,000—I took occasion to give an account of the manner in which they have been expended, detailing every article now (1898) in use, excepting the breeches buoy, which is a new and valuable device, but limited in usefulness, saying:

41. "These appropriations were expended under the supervision of an experienced officer of the revenue service in erecting buildings called station houses at intervals originally of about ten miles apart, and as the appropriations were made of five or six miles along the coast of New Jersey, beginning at Sandy Hook and extending to Cape May, of which there is now twenty-eight, and on the coast of Long Island, which has twelve of these establishments. Each house is provided with a surfboat, a lifeboat, which is a metallic elliptical vessel holding six passengers, who lie down, when the hatch is fastened and the car made impervious to water. At the ends of each car is attached a large iron ring, through which runs a cable extending from the vessel to the shore, on which the car plays through the surf, being pulled backward and forward by a rope attached at each end, by the crews and wreckers alternately, *communication being established by ball thrown from a mortar.* To the ball is attached a small line with which a cable is drawn to the vessel, on which the car plays; a truck or broad-wheeled wagon to convey the surfboat, life cars, and other necessary appliances to the point of danger; blue lights, used to notify the wrecked of approaching aid or to warn them off a dangerous point of shore; lanterns, axes, spades, speaking trumpets, lines, ropes, cables, life preservers, a stove, a full supply of wood, cut up, and provisions complete the furniture and contents of a station house."

42. "It is especially desirable that the crews of the lifeboats who endanger their lives should be paid a regular salary, and also be rewarded for any acts of dangerous or successful duty in saving life and property. *Such services have hitherto been rendered by these gallant men without pay or reward,* and so palpable an injustice should no longer disgrace this Government, and I trust that when the proposition is made to reward them it will not be withheld.

43. "I desire to give notice that at the proper time I shall make an effort to provide for them suitable compensation. My constituents have ever been on the alert to save life and property from the dangers of shipwreck, and ask no compensation for these acts of humanity, and seek no release from its burdens, but they should not be expected to keep up an organization for that purpose and be always ready to afford relief and receive no compensation for their services. For a century or more have these 'dwellers by the sea' in my district imperilled their lives to save their fellow creatures from the dangers of shipwreck, with no other reward or hope of reward than such as an approving conscience could afford.

44. "They are a gallant and humane people; most of them are Friends, a sect whose hands are ever ready for acts of unostentatious charity and who abound in every good word and work, and, sir, it is a source of no little pride and satisfaction to me that these goodly people constitute so large a portion of my constituency. Mr. Chairman, when the storm rages, and the winds howl, these hardy wreckers, forsaking their comfortable homes, patrol the beach through the dismal hours of the tempestuous night, trumpeting words of cheer to the unfortunate, and with glass in hand, peering through the early dawn to discover the shipwrecked mariner, they bring relief and 'the blessing of Him who was ready to perish falls upon them.' Such people are entitled to all the honors the Government can bestow. They deserve to have their means of usefulness increased, and I believe this body will not fail to give them a suitable recognition.

45. "I hope also that the appropriation asked for relighting the light-house at Tucker's Beach on the coast of New Jersey will be made. This light has been discontinued since 1858. It is located near Little Egg Harbor Inlet, which leads to a large and commodious harbor, acknowledged to be the best on the coast, there being fifteen feet of water on the bar. It is frequented by all classes of coasting vessels, it being not unusual to see fifty sail at anchor here."

46. The appropriations were secured for the reopening of Tucker's light. The

appropriation for the new light at Conaskonk Point, Raritan Bay, was overruled by the Sixth Auditor of the Treasury, but it was subsequently established, as were many beacons and buoys all along the New Jersey shore.

47. I am entitled to mention as a part of my especial interest in maritime adjuncts to commerce that during the Thirty-first Congress I introduced a measure looking to the establishing of a *breakwater at mouth of Delaware Bay*, enforced by a lengthy argument, contained in the Congressional Globe, which measure was subsequently accomplished after my terms of Congressional service had expired.

48. My little waif, cast so timidly upon the waters on the third day of January, 1848, has developed into a national institution of nearly three hundred rescue stations along the Atlantic, Pacific, the lakes and Gulf, a new departure in human invention and effort, a solitary system, unique, without counterpart, parallel, or rival; without monopoly, the free offering of the American people to all mankind, who, approaching our shores from the high seas, may, in dire distress, stand in need of its services and its benefits; conducted and controlled by a bureau of the Government, under the Department of the Treasury, to which, happily, I had the forcast to commit its destinies; a bureau presided over with distinguished ability since the beginning, and now by the Hon. Heber I. Kimball as its superintendent, whose management of its multitudinous and intricate duties entitles him to perennial honors.

49. I count myself fortunate in being able to record his unsolicited testimonial—thus establishing by at least a quasi endorsement of the Treasury Department—my right to be recognized as the author and founder of the United States Life-Saving Service, which will be found in his annual report to the Secretary of the Treasury for the year 1876, and which is recorded as follows:

50. "The Government first gave its attention to the method of aiding stranded vessels by the establishment of stations, furnishing means of effecting communication with such vessels and the shore in 1848, and to the Hon. William A. Newell, of New Jersey, then a member of the House of Representatives, belongs the honor of first presenting and advocating the merits of his plan in a speech in which he described the uses of the mortar, line, rockets, etc., portraying vividly the terrible scenes of shipwreck upon the calamitous shores of his State."

51. Many years have gone by since the Life-Saving Service was conceived and was consummated into a system. Although often importuned to write concerning its early history and its development, I have declined publicity in that direction, but now that the legislature of New Jersey has honored me by placing me before the world as its originator and founder, I am constrained to place upon record, in the archives of that State, a succinct historical account of my instrumentality therein, and thus fortify that legislative action.

52. It has been sufficient satisfaction hitherto for me to realize that those thirteen Austrian sailors did not die in vain. They perished upon an inhospitable shore and were buried in charity by strangers, but from the very depths of their nameless graves there has been forced up a humane institution, presented from a profession prone to benefactions without patent or price, which, adopted and fostered by a benign Government, is planted upon all our borders and manned by bold wreckers, defying wild elements and thick darkness, rescuing the forlorn mariner, the terrified passenger, and untold wealth from the perils of the sea—an institution of many mechanical appliances, the chief feature of which is the carronade, propelling ball with line, thus diverting that missile of death and destruction into a swift messenger of life and mercy.

WILLIAM A. NEWELL.

I will take up the paragraphs requiring notice in their order.

Relative to paragraph 1, perhaps there is nothing to be said except it be that the *Ayrshire* was a ship instead of a bark, and that she was wrecked in 1850 instead of in 1849.

In paragraphs 2, 3, and 4 Mr. Newell, for the first time that I have seen, lays direct claim over his signature to the invention of the method of rescuing people from a stranded vessel by projecting a line to the vessel from a mortar, by which means other larger lines are stretched between the shore and the vessel, and the people finally rescued, and gives an interesting account of the incidents and experiments which led him to the discovery.

We have seen that this method was known a hundred years ago, having been first brought to public attention by Lieutenant Bell; that a description of it was published eighty-six years ago by Captain Manby; that a pictorial pamphlet illustrating its use, a copy of which

is now in my office, also by Captain Manby, was issued in 1826, and that at the time Mr. Newell entered Congress and first described it in his speech, and for a long time previously, it was in actual use both in England and America.

X Its reinvention by Mr. Newell is a curious coincidence, involving not only an identity of the invention itself, but a great similarity in the circumstances which led to it, for if we change the locality of the distressing scene Mr. Newell depicts from Long Beach, south of Barnegat Inlet, New Jersey, to Yarmouth, England, the date from 1840 to 1807, the vessel from the Austrian brig *Count Perasto* to His Majesty's gun brig the *Snipe*, the number of persons who perished from 13 to 67, they are very like those which Captain Manby relates. The succeeding experiments are almost the same, while the results are identical. The close resemblance between the experiences and experiments which led Mr. Newell to reinvent Captain Manby's invention and those which led Captain Manby to invent the device which Lieutenant Bell had previously accurately described may seem remarkable, but it is said that in the annals of the Patent Office similar coincidences are not uncommon. It is noticed here incidentally that, although in paragraph 4, under notice, he states that the culmination of his experiments was complete success with the use of a mortar, it was a carronade which his speech advocated the use of and which the amendment he framed provided for, while in carrying out the provision Captain Ottinger rejected the carronade and substituted for it the mortar. A carronade was never used for the purpose in this country.

In paragraphs 7 and 8 he describes the discouraging yet persistent efforts he made to get his proposition accepted by the committee, of whom he names Washington Hunt, chairman; Joseph Grinnell, and William R. King; the rebuffs he encountered; how, ignoring the committee, he appealed to the President, Vice-President, the Speaker, and every Senator and Representative he could reach; tells of the consideration extended to him by Clay, Calhoun, Webster, and other great men of the period, and how, after a labor of eight months, during which he could avail nothing with the Committee on Commerce, nor with the chairman of any of the House committees vested with power to recommend appropriations, he succeeded in the Committee of the Whole in slipping his "time-worn amendment" into the light-house bill, when "it passed without notice, dissent, or vote * * * in the hurry and flurry of impending adjournment."

Mr. Newell is seriously in error in some of these statements. Turning to his speech of August 3, 1848, made while the House was in Committee of the Whole, the Army appropriation bill being under consideration—which speech is given in full in the Appendix to the Congressional Globe (vol. 19, first session, Thirtieth Congress, pp. 1087 to 1089)—we find near the beginning the following sentence: "The honorable chairman of the Committee on Commerce (Mr. Hunt) assures me that it (the proposition) meets with their hearty approval, and that at the proper time it shall be offered." Again, further on it is stated that the proposition meets with the hearty approval of the gentleman from Massachusetts, Mr. Grinnell. In paragraphs 10 and 11 we find an extract stated to be from the Congressional Globe, which purports to recite what occurred in the House on August 9, with reference to the light-house bill, so far as the proposition is concerned.

From this it would appear that Mr. Newell called the attention of the House to the matter in a brief speech, in which he referred to the patient attention given to his extended speech of the previous Thurs-

Since this document was printed official information has been received from the Au

day, and "the question being taken, the amendment was unanimously adopted." This extract is found printed at the close of his speech in the *Appendix* to the *Globe* (vol. 19, p. 1089). In the *Journal* of the House of that date (pp. 1210 to 1213) no mention is made of any such occurrence either in the House or in Committee of the Whole, nor does the *Congressional Globe* itself in reporting the proceedings of the day (*Cong. Globe*, vol. 18, p. 1054) show any such thing. It is only stated that all the Senate amendments and afterwards all the amendments of the Committee on Commerce were concurred in. Mr. Newell is not shown to have offered any amendment. From this it is evident that the amendment had been adopted in the Committee on Commerce and was reported by that committee as an item in the bill and adopted by the House together with the other committee amendments.

The extract in paragraphs 10 and 11, quoted as from the *Globe* and which reads as if it were from the *Globe* account of the proceedings of August 9, is only a suffix or appendage to his speech, and is printed as a part of it in the *Appendix*, which, as the title page to the volume states, contains only "Speeches and important State papers." It bears evidence upon its face that it was not composed by the official reporter nor by anyone familiar with reporting Congressional proceedings, since it states that the light-house bill was "under consideration before the House," while it quotes Mr. Newell as saying that "he would not now consume the time of the committee."

In paragraph 9 Mr. Newell announces that the signature of the President completed legislation that launched his plan, which he "denominated the 'American system,'" and half deprecatingly complains, while turning the circumstance to the account of his own honor, that the Government designates it the "United States Life-Saving Service." With regard to this I can only say that I can not find that in any of his remarks in Congress relating to the subject he ever used the term "American system," nor have I ever heard of that designation until the issue of his pamphlet. By what right or warrant, in view of what has been shown of its long-prior existence, he called the plan his or the "American system," is not apparent. The "United States Life-Saving Service" is a perfectly natural name for the existing system, but exactly when or how it first came to be used I can not tell.

The account of the wreck of the *Ayrshire* in paragraph 12 shows that Mr. Newell is grossly in error regarding that disaster. The *Ayrshire* was not a bark, as stated, but a ship; she was not wrecked on the 25th of December, 1849, on Absecom Beach, but on the 12th of January, 1850, on Squan Beach, some 60 miles north of Absecom; she did not founder 3 miles from the shore, but stranded on the bar about 400 yards from the beach; a carronade was not used, but a mortar; the ball was not the first ever fired with friendly intent at the hull of a ship, nor did it carry "the first life line (shot line) ever thus projected, thereby saving human lives and property by a hitherto unknown agency," but the same means had been successfully used for the same purpose certainly more than thirty years before and many times afterwards; the number of persons rescued was not 301, nor 401, as stated in a speech made in Congress by Mr. Newell on July 14, 1866 (see *Congressional Globe*, part 5 and *Appendix*, first session Thirty-ninth Congress, p. 262), but 201; and the rescue was not achieved before the life car was in use, but all of the 201 persons saved were brought ashore in the life car itself. The Francis Metcalf (Francis metallic?) lifeboat and the Holmes surfboat were not used on the occasion.

Similar confusion prevails throughout paragraphs 13 to 30 inclusive,

which purport to give extracts from the Congressional Globe containing portions of his speeches made in Congress August 3, 1848, and February 17, 1849, and including an amendment to an appropriation bill and a resolution which he offered. They are all very incorrectly quoted, those, for instance, from his speech of August 3, 1848, embraced in the six short paragraphs, from 13 to 18 inclusive, containing no less than forty-two variations from the language actually used, as reported in the Appendix to the Congressional Globe (vol. 19, p. 1087 et seq.), from which he says he quotes. Even the amendment in paragraph 20 and the resolution in paragraph 30 are misquoted. It would be a waste of time to notice these inaccuracies seriatim, but they are indicative of the character and value of the pamphlet.

There is one matter contained in these extracts, however, to which I will briefly call attention. It is embraced in the quotations from his speech of February 17, 1849, as given in paragraphs 23 and 25. Paragraph 23 begins with the quoted sentence:

With the permission of the House I will send to the Clerk's desk a letter addressed to myself, dated October, 1848, which I have received from the gentleman, Capt. Douglas Ottinger, of the Revenue Service. I give extracts from this letter.

The language actually used, as shown in the appendix to the Congressional Globe, Thirtieth Congress, second session, was "with the permission of the committee I will send to the Clerk's desk a letter lately received from this gentleman (Captain Ottinger) of the Revenue Marine Service." It thus appears that the speech was made in Committee of the Whole.

The letter which follows, and is printed in full, is dated January 16, 1849—not October, 1848, as stated—and to show the manner in which it is dealt with in the pamphlet the letter and the extracts are here given in parallel columns, a careful comparison of which is invited.

Extracts.

We have erected eight stations within the limit of the law for the preservation of life and property from shipwreck on the coast of New Jersey, and design to have at each of them a substantial frame house to be furnished with galvanized surfboats, with ten separate air chambers, one hundred and sixty fathoms of hawser, three hundred and sixty fathoms of hauling rope, six hundred yards of rocket line, rockets, etc. Stoves and fuel will be placed in the buildings, which will be sufficiently large to shelter persons and goods. In addition to the surfboats, I propose to have a life car in each station, which is designed to carry a line to the stranded vessel where the wind and sea are too heavy for the best constructed boat to live. *I have made some experiments in throwing a line from the shore to a vessel with a rocket, and threw it two hundred and fifty yards, with which we tested the practicability of sending a hawser from the beach to a boat or vessel. It is my intention, as soon as the weather will permit, to make some trials in throwing a line by means of a mortar and shot, and am of the opinion that, if successful, we shall place them at the several stations.*

Letter.

NEW YORK, January 16, 1849.

HON. W. A. NEWELL,
Member of Congress.

DEAR SIR: I take much pleasure in giving you information on the subject of your letter, and, although it may appear that we have not progressed rapidly, yet we have been constant in our efforts to bring the matter to good account, and have called to our assistance several of the most intelligent surfmen along the coast, who have selected a boat as a model by which those provided for in the appropriation are to be constructed. We have selected eight stations on the beach, within the limits embraced in the law "for the preservation of life and property from shipwreck on the coast of New Jersey," and design to have at each of them a frame house of the most substantial kind, to be furnished with a galvanized-iron surfboat, with ten separate "air chambers," one hundred and eighty fathoms of hawser, three hundred and sixty fathoms of hauling line, six hundred yards of rocket line, rockets, etc.

Stoves and fuel will also be placed in the buildings, which will be sufficiently

The coast of Long Island is sadly in need of surfboats and houses to save and shelter the shipwrecked. I am much indebted to one of your constituents, Major Henry Wardell, for valuable information on the subject of my present duties, and during my stay with him I had the satisfaction of hearing remarks from several intelligent persons throughout the neighborhood who were gratified that the Government was about to place under their control more effective means to enable them to extend their usefulness in preserving life and property from shipwreck.

large to shelter persons and goods. In addition to the surfboats, I propose to have a "life car" at each station, which is designed to be sent to the stranded vessel when the wind and sea is too heavy for the best constructed boats to live. I have not yet had the car approved of by the committee of the board of underwriters, by whom I am advised in these matters, but I have no doubt it will meet their approbation.

I am much indebted to Major Henry Wardell, one of your constituents, for valuable information on the subject of my present duties, and during my recent visit to that city I had the satisfaction of hearing remarks from several intelligent persons which evidenced that the people throughout the neighborhood were gratified that the Government is about to place under their control more efficient means to enable them to extend their usefulness in saving life and property from shipwreck.

I have made some experiments in throwing a line from the shore to a vessel with a rocket, which was witnessed by Messrs. Jones and Suydam, of the committee, and several other gentlemen who accompanied us in the United States revenue cutter outside of Sandy Hook, at which I fired several rockets with lines attached, and threw out two hundred and fifty yards of line, weighing 1.62 ounces per yard, with which we tested the practicability of sending a hawser from the beach to a boat or vessel.

The rockets used on that occasion were imported by R. B. Forbes, esq., of Boston, who is the executive officer of the "Massachusetts Humane Society," and is constructing surfboats from the appropriation of five thousand dollars given by Congress to that society. Captain Forbes informs me that Colonel Talcott, of the Ordnance, at Washington, has offered to furnish rockets from the arsenal at that place for humane purposes, and from experiments recently made by the officer in the pyrotechnic department, it is believed that he can produce rockets fully equal to those imported.

It is my intention, as soon as the weather will permit, to make some trials in throwing a line by means of a mortar and shot, and am of the opinion that we will also place them at the several stations. I can scarcely answer your inquiry respecting the persons to whom the boats are to be intrusted; but from what I learn on that point, my opinion is that the *surfman* who first arrives at the boathouse should have the privilege of taking charge of her for that occasion, *provided* he has the ability to take the "steering oar;" and if he has not, none of the others will place themselves under his command.

But the general charge of both the houses and the public property is to be given to some responsible person who

resides near the station. These persons are mostly agents for some of the insurance companies, and the "boat's crew" who first boards a stranded ship is employed by the underwriters in preference to any other; and if I may judge from the remarks of the various persons whom I have met on the beach, the boats will be readily "manned;" for I am happy to say that I believe that many persons on the "seashore" of your district enter warmly into the feelings by which you were actuated in obtaining an appropriation for so noble a cause, and I am much gratified to have the honor of being selected as the executive of your views in this case; and I hope to have everything connected therewith in progress of construction in a few days. I have conversed with several intelligent seamen respecting the need of surfboats between Cape May and Egg Harbor, and their opinions agree with mine, that it is of much importance, and boats would be highly useful on that part of the coast.

The boats and buildings which I am superintending the construction of will endure for twenty years at least; and it is my intention to suggest to the Secretary of the Treasury, in my report, that the public interests might be served by making it the duty of the commanders of the *revenue cruisers* to visit once in three months the persons intrusted with the care of the surfboat stations, and inquire whether anything is needed, as well as to inspect, with the keeper, their condition, and report to the Secretary. If that matter is embraced in the law of Congress making the appropriation, it will be likely to insure the duty being done more effectually.

It will always add to my happiness to give you any information that you may require respecting my duties.

I am, very respectfully, yours,

D. OTTINGER,
Captain, U. S. R. Marine.

I have omitted to mention that the seacoast of Long Island is sadly in need of surfboats and houses to save and shelter the shipwrecked, and hope that that important part of our shore will be cared for.

Yours,

D. OTTINGER.

The transposition and substitution of sentences, phrases, and words I will make no note of. What is most striking is the distortion or omission of everything inconsistent with Mr. Newell's claim of being the inventor of the method of effecting line communication between the shore and a stranded vessel by means of a carronade, or a mortar. This is apparent where, in the quotation, he represents Captain Ottinger as saying the life car is "designed to carry a line to the stranded vessel," and again by the insertion of the words "if successful," near the end of the italicised portion of the quotation, and the statement he makes immediately after it (paragraph 24) to the effect that the Cap-

tain did not manifest any confidence in the success of the ball and mortar.

The life car was never intended to carry a line to a stranded vessel, and the language actually used by Captain Ottinger does not convey the idea that it was. That Mr. Newell knew it was designed to convey passengers from a vessel to the shore, and not to carry a line from the shore to a vessel, is obvious from the statement made in his speech of July 14, 1866, quoted in paragraph 41 of the pamphlet where, although the word "lifecar" in the original as reported in the Appendix to the Globe is changed to *lifeboat*, it is plain to see, he describes the use of the car. Also, from the statement made in the same speech, but not quoted in the pamphlet, that "four hundred and one passengers were safely landed in a fearful storm in the Government life cars." So with reference to Captain Ottinger's alleged distrust of the success of the ball and mortar. Omitting the interpolated words "*if successful*" there is nothing to indicate distrust. On the contrary, what he said would rather imply confidence.

The failure to quote that portion of the letter which states that the rockets used in throwing a line in the experiments spoken of in the beginning of the italicised portion of the quotation, were imported by R. B. Forbes, the executive officer of the Massachusetts Humane Society, who, the letter states, was constructing surfboats from the appropriation of \$5,000 made by Congress, the appropriation secured by Mr. McClelland in 1847, is noticeable. The insertion of this would not have harmonized with two of Mr. Newell's claims—one, that he was the first to secure the agency of the Government in the rescue of the shipwrecked (see paragraph 12); the other, that he originated the plan of firing a line over the wrecked vessel from the shore.

Paragraphs 31 to 39, inclusive, being, as he states, a portion of his gubernatorial message to the legislative assembly of Washington Territory in 1883, may be passed, although his statement in paragraph 34 that "the Life-Saving Service was wholly devised and originated by my (his) individual and unassisted efforts during my (his) membership of the Thirtieth Congress, as a representative from New Jersey, at its first session, in all its details" will hardly be concurred in by those who are acquainted with the facts.

In paragraph 40 he states that in his speech of July 14, 1866, in designating the objects of the expenditure of appropriations previously made, amounting to \$40,000, he detailed every article now (1898) in use, excepting the breeches buoy. So far from this being true, the fact is that there are many articles now used in the stations that were then unknown, and there is not now in use a single article like any of those he detailed. Several of the latter have been superseded by other devices which better serve the purpose, while there are some appliances which, although bearing the name of discarded ones, are vast improvements over them.

The next ten paragraphs, from 41 to 50, inclusive, appear to be a continuation of his message (although I am unable to positively determine that), but consisting largely of quotations said to be taken from his speech in Congress of July 14, 1866. Comparing these quotations with the speech as printed in the Congressional Globe (part 5 and appendix, first session Thirty-ninth Congress, pp. 261 and 262), it is found that the same course of mutilation has been pursued that characterizes the extracts from his other speeches, as heretofore pointed out. There are entire sentences and even paragraphs in the quotations that

do not appear in the speech at all. There is but one paragraph, however—that numbered 42—which it is worth while to speak of.

It will be remembered that in the first part of this report I had occasion to notice a statement contained in the preamble to the resolutions of the legislature of New Jersey, that Mr. Newell urged the justice of paying the life-saving crews and secured the adoption of the measure in Congress, and that I showed that he not only did not secure the adoption of such a proposition, but did not in fact advocate the employment and payment of regular crews such as are now in the service, as would naturally be inferred from the statement in the preamble. I stated that what he did urge was the payment of the crews who volunteered their services at wrecks for each occasion of service, as was being done elsewhere. The misquotation from his speech, in paragraph 42, would seem to be made with the view of carrying out his purpose to fortify the New Jersey legislature in their action, which he states is one object of the preparation of his document. Although there are other divergencies from the original in the paragraph, it is sufficient to note only the interpolation contained in the first sentence, which is here given with the text from the Globe beside it.

[From pamphlet, par. 42.]

It is especially desirable that the crews of the lifeboats who endanger their lives should be paid a regular salary, and also be rewarded for any acts of dangerous or successful duty in saving life and property.

[From Congressional Globe.]

It is desirable that the crews who endanger their lives shall be paid, and especially rewarded for any acts of dangerous and successful duty in saving life and property.

As there will not be occasion to further notice his speeches, I leave them, with the remark that although he several times describes the method of using the mortar and shot line and the subsequent proceedings in effecting a rescue, he never in any of them so much as hints that it is his invention, nor alludes to the "American system."

There remains but one other paragraph to consider—No. 50—and while this is accorded the distinction of exclusive display in large capitals, from which it may be inferred that it is the grand climax of his argument, but little need be said of it. In fact, after what has been remarked upon the point in a former part of this report, it is enough to place the alleged quotation and the extract from my annual report for the year 1876, of which it purports to be a copy, side by side, asking particular notice of the ten changes from the original which have been introduced, and especially of the conversion of the word *this* into *his*, by the elimination of the letter *t*. Italics and carets in the quotation show where changes from the original have been made.

[Paragraph 50.]

The Government first gave its attention to the method of aiding stranded vessels by the establishment of stations, *^furnishing* *^* means of effecting communication *with* such vessels and the shore, in 1848, and to the Hon. William A. Newell, of New Jersey, then a member of the House of Representatives, belongs the honor of first *presenting and* advocating the merits of *his* plan in a speech in which he described the *uses* of the *^* mortar, *line, rockets, etc., portraying* vividly the *terrible* scenes of shipwreck upon the calamitous shores of his State.

[Life-Saving Report, 1876.]

The Government first gave its attention to the method of aiding stranded vessels by the establishment of stations along the coast, furnished with the means of effecting communication between such vessels and the shore, in 1848, and to the Hon. William A. Newell, of New Jersey, then a member of the House of Representatives, belongs the honor of first advocating the merits of this plan in a speech, in which he described the *uses* of the surfboat, mortar, line, rockets, etc., portrayed vividly the horrible scenes of shipwreck upon the calamitous shores of his State.

I regret that this report has reached such extended length. As, however, the Committee on Commerce asks for information touching the facts in the case, and the memorial submitted embraces quite a number of statements concerning Mr. Newell's action in Congress as related to the origin and development of the Life-Saving Service, it was found necessary to examine the record of his six years' membership in this regard and then to consider its bearing upon the claims made in his behalf. This proved to involve much research and considerable remark. And here I could wish that my task might have ended. But at this juncture came the pamphlet, which I would gladly have entirely disregarded had I not felt unavoidably compelled to introduce it from two considerations.

First. It was evidently sent to me as the argument of its author with the expectation of its being considered in the preparation of my report, and to have ignored it would have subjected me to the imputation of having unfairly treated him, and of misrepresenting matters in respect to which the report and the pamphlet disagree.

Second. It is stated in paragraph 51 that he placed the document upon record in the archives of the State of New Jersey as a succinct historical account of his instrumentality in creating the Life-Saving Service and to fortify the legislative action of that State in declaring him its originator and founder. To allow, as the official head of the Service, charged with the responsibility of caring for its welfare and interests, such a declaration, based upon so fragile a foundation, to pass unchallenged as historical truth, and to omit to expose the multitudinous imperfections in the structure upon which it rests, would be on my part an unpardonable dereliction of duty. Moreover, it was felt that Congress or its committees should be in possession of the fullest information regarding the subject of any proposed legislation of such importance as that involving historical truth. The want of such information has heretofore led to inconsistent and injurious legislation in regard to the Life-Saving Service, an instance of which it may not be inappropriate to mention here. An act of Congress approved February 14, 1859, directed—

That there be paid to Captain Douglas Ottinger, out of any money in the Treasury not otherwise appropriated, the sum of ten thousand dollars, in full compensation for the use of his invention of the life or surf car by the United States, and also to enable him further to test the practicability of adapting such car to the rescuing of passengers and crews during violent gales at sea.

That sum was accordingly paid to Captain Ottinger. The following resolution passed the House February 18, 1886, and the Senate March 2, 1887:

JOINT RESOLUTION in recognition of the services of Joseph Francis.

Resolved by the Senate and the House of Representatives of the United States of America in Congress assembled, That in view of the life-long services to humanity and to his country of the now venerable Joseph Francis, in the construction and perfection of life-saving appliances by which many thousands of lives have been saved, the thanks of Congress be, and are hereby, tendered to Joseph Francis; and that the President of the United States is hereby authorized to cause to be prepared a gold medal, with a suitable inscription, to be presented to Mr. Francis in recognition of his eminent services. (H. Res. 125, Forty-ninth Congress, first session.)

The passage of this resolution was based entirely upon a report of the House Committee on Commerce (No. 529), which assigned to Mr. Francis the inventorship of the life car. The resolution, however, was not approved by the President, and, upon the adjournment of Congress, died. In 1888 a joint resolution under the same title and to the same

effect, but in slightly different language, passed both Houses and was approved August 27, 1888. A gold medal, one of the largest ever struck by the Government, and costing, including the dies, over \$3,000, was prepared, on which were impressed the portrait of Mr. Francis and the inscription "To Joseph Francis, Inventor and Framer of the Means for the Life-Saving Service of the Country." Happening some time afterwards to visit the National Museum, I observed a glass case or cabinet labeled "Historical and personal relics of Joseph Francis," in which this medal, among other things, was displayed. The cabinet itself was surmounted by a conspicuous sign, on which was painted, "Joseph Francis, Founder of the U. S. Life-Saving Service."

I wrote to the officer in charge of the Museum that I deemed it my duty in the interest of the truth of history to call his attention to the error into which the Museum had been led, and to say, without wishing to detract in any degree from the merits of Mr. Francis, that he was in no sense entitled to be called the founder of the Life-Saving Service, adding that I did not imagine that either he or his friends would attempt to establish any such claim, but if the effort should be made I was prepared to entirely refute it. The sign was removed. Thus it appears that Congress has at different times recognized each of two rivals for distinction as the inventor of the life car, awarding one the sum of \$10,000, and the other one of the most expensive and elaborate gold medals ever issued by the Government, the medal designating its recipient the "inventor and framer of the means for the Life-Saving Service of the country," which he never was, while he was subsequently proclaimed and exalted, in the nation's great Museum, as the founder of the Life-Saving Service, a title to which he had not a scintilla of claim.

The Life-Saving Service is now an important branch of the General Government, which, on account of its unique character as a national institution, its benevolent and humane purposes, its remarkable success, and the preeminence it has attained among kindred institutions, has become conspicuous and popular, and Mr. Francis and Mr. Newell are not the only aspirants for the distinction of having founded and created it. It is only in recent years, however, that these aspirations have been evident. Previous to the time when the Department, with the aid of Congress, undertook its organization in 1871, I think I am safe in saying, no claim to its authorship was ever made.

The fact is, the credit of originating and developing the United States Life-Saving Service can not truthfully be awarded to any single individual.

In Congress and out of Congress many men have contributed, some in a great and some in a less degree, to the success of its fortunes. To even write down the names of the legislators in both houses of Congress who have been its advocates and champions, and to refer ever so briefly to their valuable assistance, would occupy much space and require considerable research, but there occur to me at once, as conspicuous among the host of its promoters, Senators Hannibal Hamlin, O. D. Conger, W. E. Kenna, W. J. Sewell, and William P. Frye, and Representatives S. S. Cox, Charles B. Roberts, John Lynch, James W. Covert, and Jesse J. Yeates. Presidents of the United States and various Secretaries of the Treasury have promoted its welfare. Many officers of the Life-Saving Service also, as well as officers detailed to it from the Revenue-Cutter Service, have, from time to time, suggested and assisted to carry into effect important improvements.

